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Here, on Mt. Rose, Nevada, Dr. J. E. Church made the first western snow survey 50 years ago.

R Y
CORD
JUN 8 - 1959
U. S. DEPARTMENT OF AGRICULTURE

FEDERAL - STATE - PRIVATE COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for OREGON

UNITED STATES DEPARTMENT of AGRICULTURE
SOIL CONSERVATION SERVICE
and
OREGON AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and private organizations.

AS OF
MAY 1, 1959

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1300 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

REPORTS	ISSUED	COOPERATING WITH	LOCATION
RIVER BASINS			
Colorado, Rio Grande and Arkansas	Monthly (Feb.-May)	Colo. Exp. Station Colo. State Engineer New Mexico State Engineer	Ft. Collins, Colo.
Columbia *Includes Alaska*	Monthly (Jan.-May)	Idaho State Engineer	Boise, Idaho
Upper Missouri	Monthly (Feb.-May)	Mont. Agr. Exp. Station	Bozeman, Montana
West-Wide	(Oct. 1, Apr. 1 and May 1)	Cooperators	Portland, Oregon
STATES			
Arizona	Semi-Monthly (Jan. 15-Apr. 1)	Salt R. Valley Water Users Association	Phoenix, Arizona
Nevada	Monthly (Feb.-Apr.)	Nevada State Engineer	Reno, Nevada
Oregon	Monthly (Jan.-May)	Ore. Agr. Exp. Station	Portland, Oregon
Utah	Monthly (Jan.-May)	Utah State Engineer Utah Agr. Exp. Station	Salt Lake City, Utah
Washington	Monthly (Feb.-May)	Wash. State Dept. of Conservation	Spokane, Washington
Wyoming	Monthly (Feb.-June)	Wyoming State Engineer	Casper, Wyoming

Copies of the various reports may be secured from: Head, Water Supply Forecasting Section
Soil Conservation Service
209 S.W. 5th Avenue, Portland 4, Oregon

PUBLISHED BY OTHER AGENCIES

OTHER SNOW SURVEY REPORTS			
British Columbia	Monthly (Feb.-June)	Comptroller, Water Rights Br., Dept. of Lands and Forests, Parliament Bldgs.	Victoria, B.C.
California	Monthly (Feb.-May)	California Department of Water Resources	Sacramento, California

FEDERAL - STATE - PRIVATE COOPERATIVE

SNOW SURVEY and WATER SUPPLY FORECASTS for OREGON

ISSUED

May 8, 1959

Report prepared by

W. T. FROST, Snow Survey Supervisor

and

MANES BARTON, Assistant Snow Survey Supervisor

SOIL CONSERVATION SERVICE
209 S.W. 5TH AVE. PORTLAND 4, OREGON

Issued by

THOMAS P. HELSETH
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE

F. EARL PRICE
DIRECTOR
OREGON AGRICULTURAL
EXPERIMENT STATION

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UPPER JOHN DAY..... AREA 4

UPPER DESCHUTES, CROOKED..... AREA 5

HOOD, MILE CREEKS, LOWER DESCHUTES..... AREA 6

LOWER COLUMBIA..... AREA 7

WILLAMETTE..... AREA 8

ROGUE, UMPQUA..... AREA 9

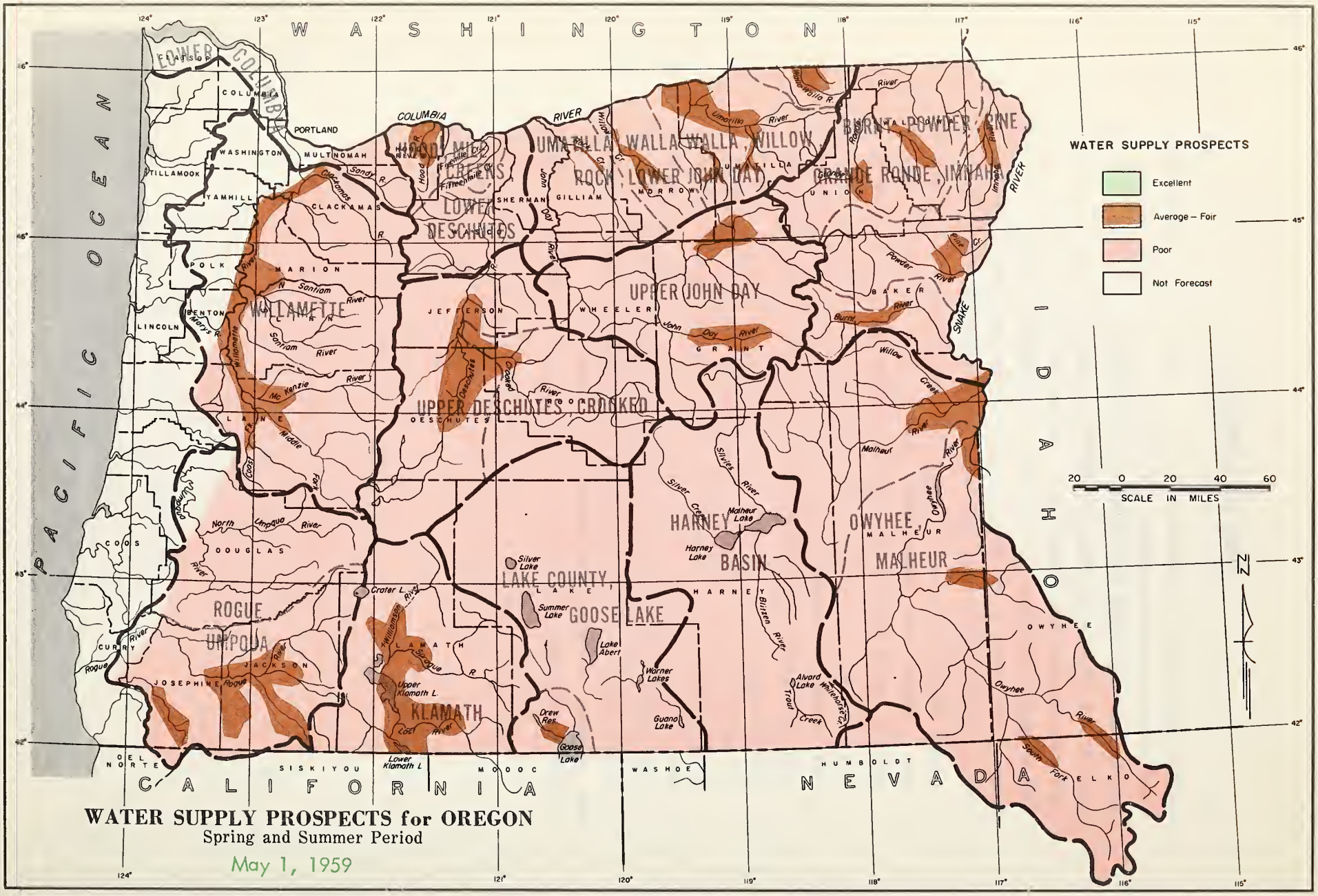
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LIST OF COOPERATORS.....INSIDE BACK COVER



WATER SUPPLY PROSPECTS for OREGON

Spring and Summer Period

May 1, 1959

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

7-O-19102-1-L

WATER SUPPLY OUTLOOK for OREGON

May 1, 1959

Oregon's 1959 irrigation season water supply outlook is only fair to poor except on those streams with irrigation reservoir facilities. Reservoirs hold an average supply of water but will be seriously depleted by excessive irrigation water demands this summer. April precipitation fell way short of normal. Streamflow will drop off rapidly during the next month unless unusually heavy rainfall occurs.

SNOW-COVER:

Oregon's mountain snow-pack has been melting rapidly during the past month. Only one-half of the snow which was on the ground on April 1 remains; and the April 1 snow-pack was subnormal at 61 percent.

SOIL MOISTURE:

Soils under the mountain snow-pack are wetter than a month ago due to snow-melt. In areas such as southeastern Oregon where a scant snow-pack was measured on April 1, the original dry soils remain dry and will have an adverse effect on grazing and any runoff from rainfall.

RESERVOIRED WATER:

Stored water in 23 irrigation reservoirs is 97 percent of the average May 1 amount. Inflow into these reservoirs has been low. In fact, inflow has just balanced outflow as evidenced by the fact that for the 23 reservoirs the April 1,1959 storage and May 1 storage are both 76 percent of total reservoir capacity.

Most range land stockponds in Oregon are very short of water.

PRECIPITATION:

State-wide precipitation[1] during April at 15 valley stations was only 41 percent normal. Total precipitation since October 1 averages 86 percent normal.

STREAMFLOW:

Flow of key Oregon streams[2] during April has been average to much below average ranging from a high of 108 percent normal on Hood River to a low of 14 percent on Owyhee River.

Forecasts of Oregon's April-September irrigation season streamflow have been revised downward due to the below normal April rainfall.

Forecasts of April-September runoff range from lows of 15 percent normal on the Owyhee River and 21 percent normal on Silvies River to near 100 percent on the Lostine River.

Forecasts of April-September streamflow in percent of the 1938-52 normal for other streams:

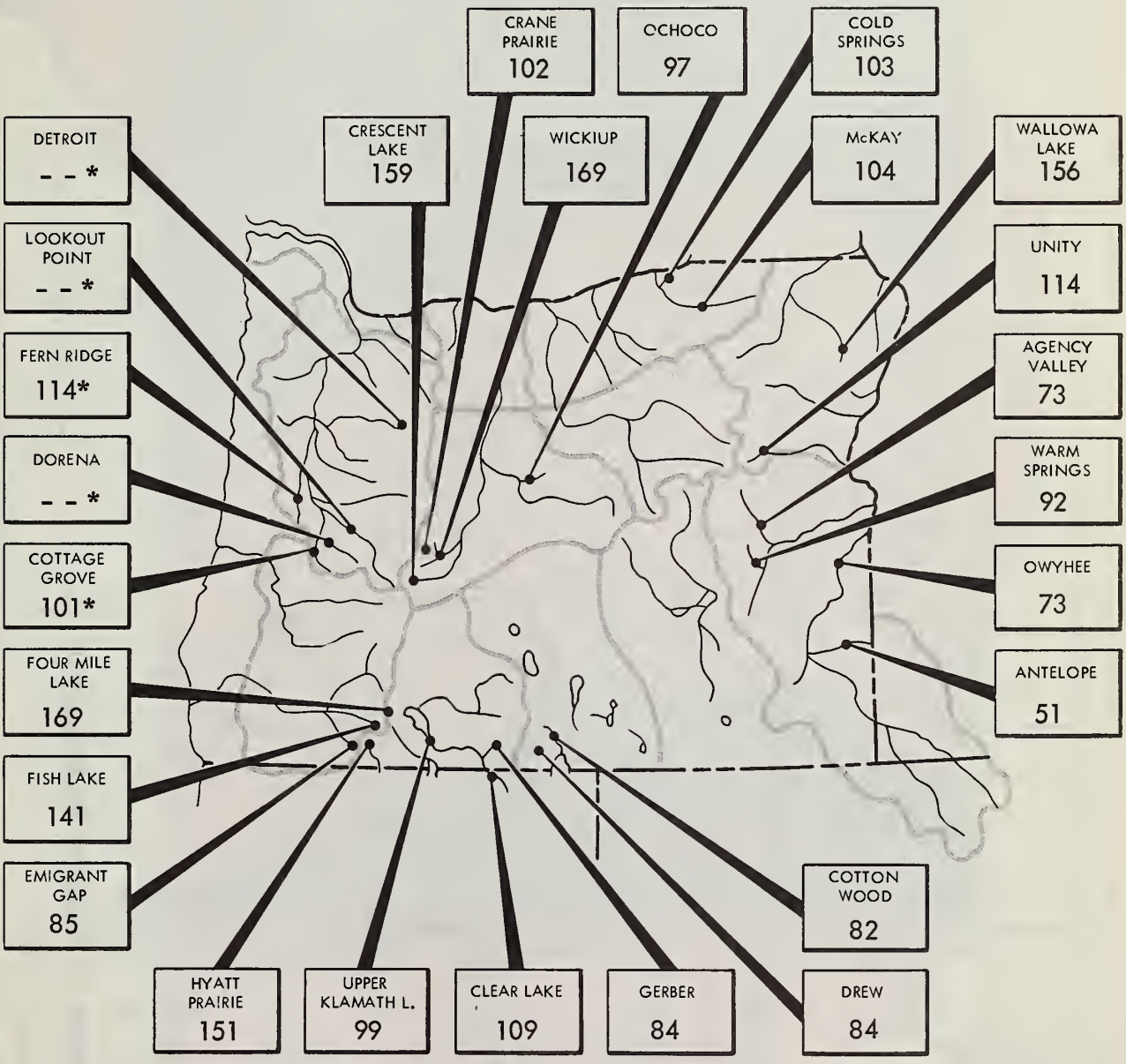
Malheur	52	Deschutes	74
Burnt	57	Hood	78
Powder	63	Willamette	76
Grande Ronde	68	North Umpqua	80
Umatilla	84	Rogue	69
Walla Walla	70	Klamath Lake	81
John Day	70	Chewaucan	44
Crooked	40	Blitzen	53

[1] *From preliminary data furnished by U.S. Weather Bureau, Portland, Oregon.*

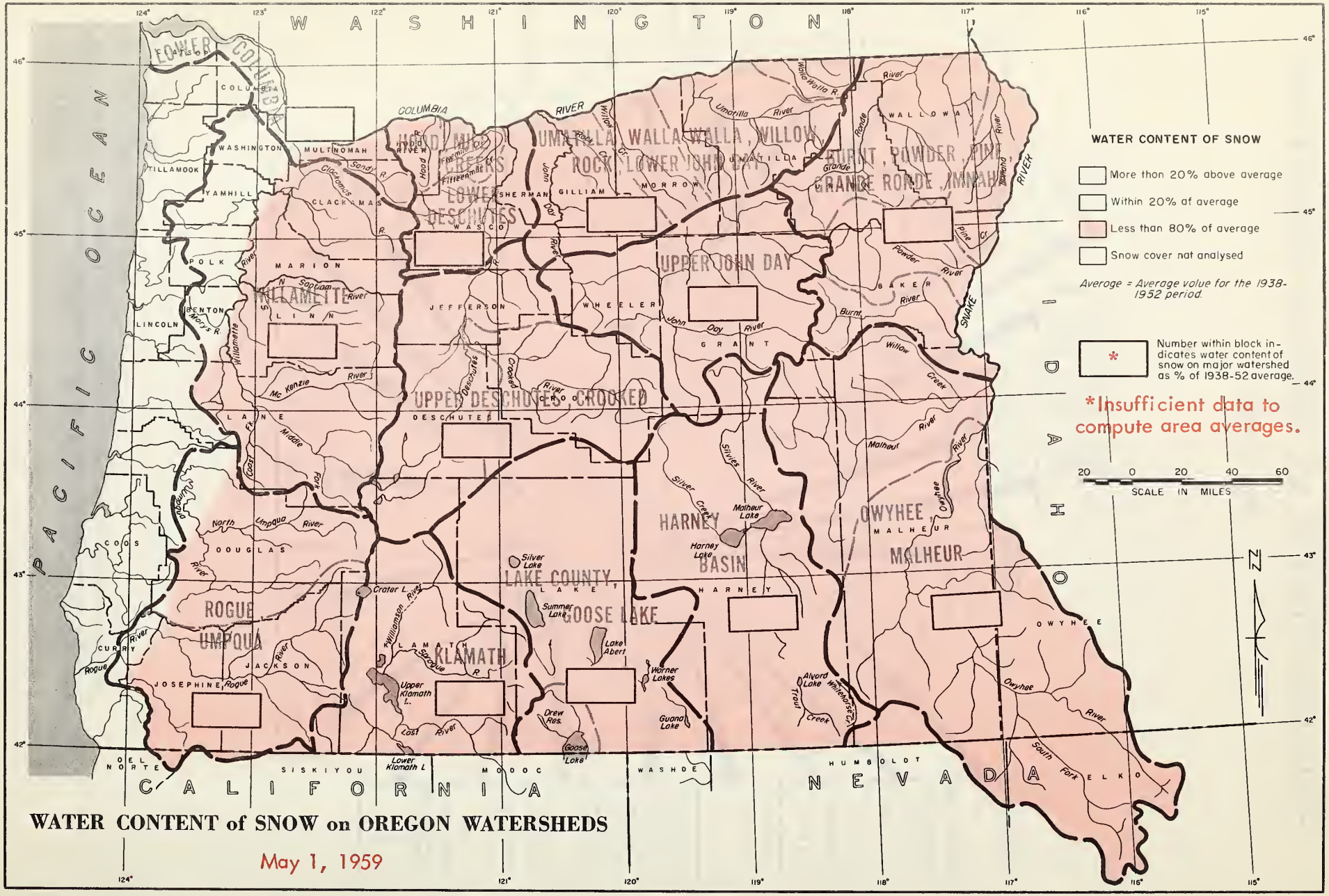
[2] *From preliminary data furnished by U.S. Geological Survey, Portland, Oregon.*

STORAGE STATUS of OREGON RESERVOIRS

May 1, 1959



Figures given are usable storage as percent of 1938-52, 15 year average.
** - Multiple purpose reservoir - space reserved primarily for flood runoff*
N R. - *No report.*



WATER CONTENT of SNOW on OREGON WATERSHEDS

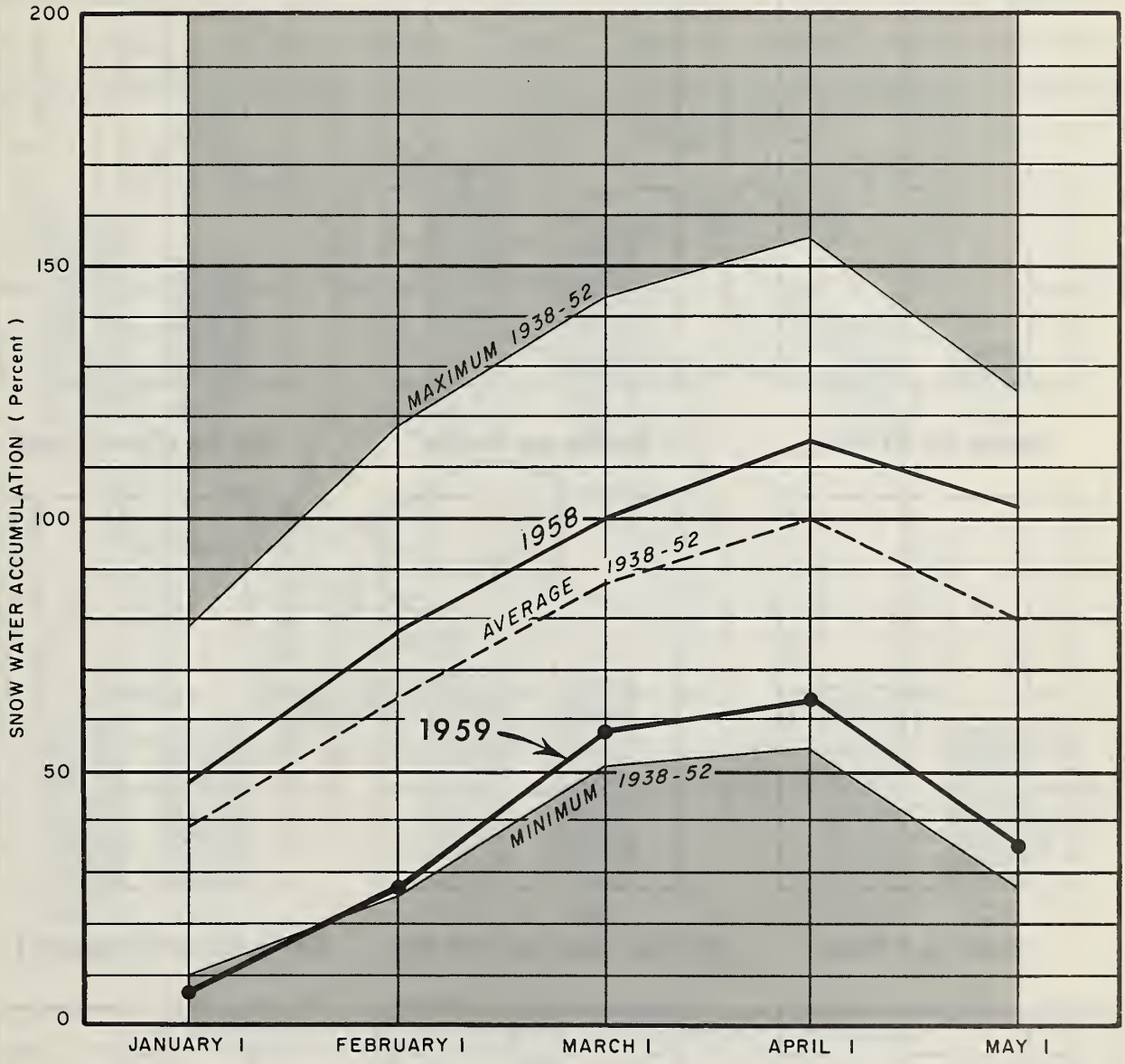
May 1, 1959

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

7-0-19102-2-L

SNOW WATER ACCUMULATION in OREGON

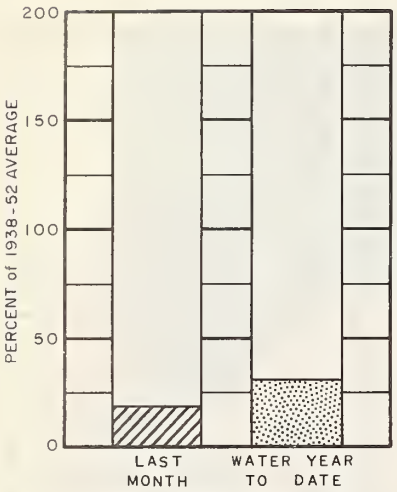
May 1, 1959



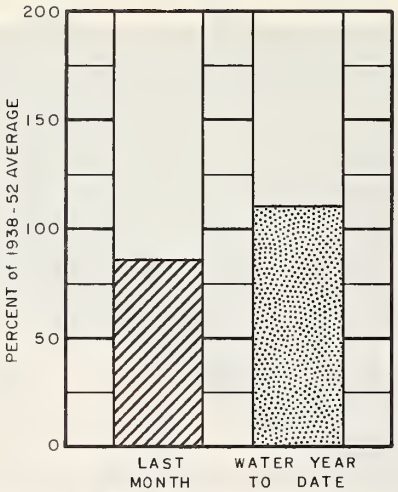
Oregon's "short" snow-pack is melting rapidly. During the month of April the snow-pack decreased from 63 percent of a normal winter's accumulation to 35 percent on May 1. Usually the snow-pack decreases 20 percent during April. This year's drop of 28 percent during April shows how accelerated the snow melt has been.

CURRENT OREGON STREAMFLOW

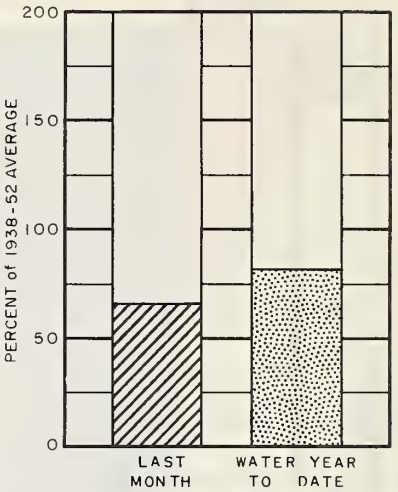
May 1, 1959



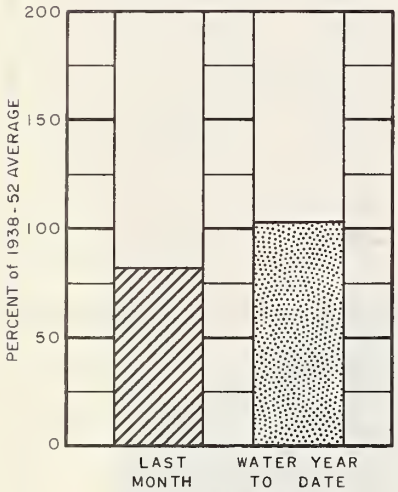
Owyhee Res. net inflow



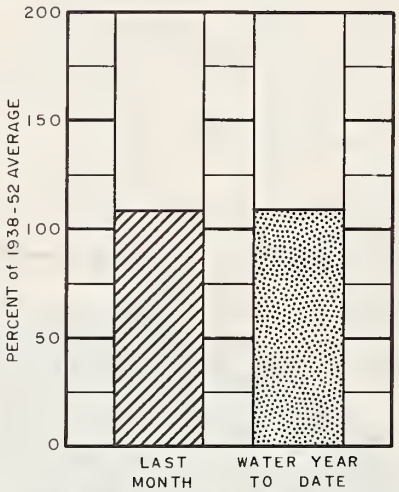
Umatilla near Umatilla



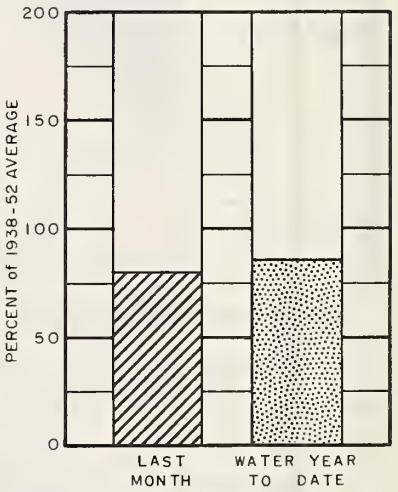
John Day at Service Creek



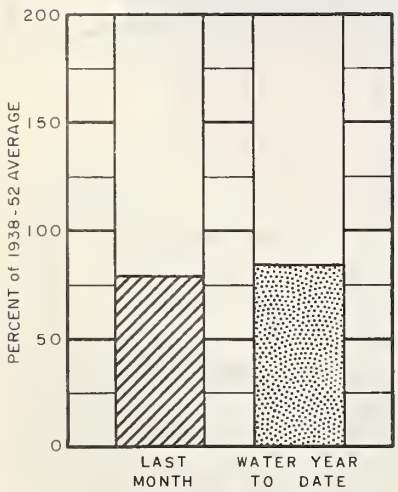
Deschutes at Moody



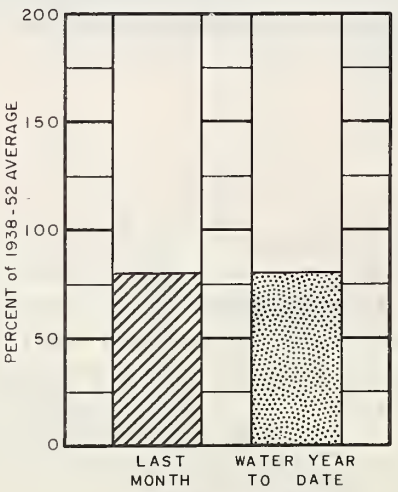
Hood and conduit near Hood River



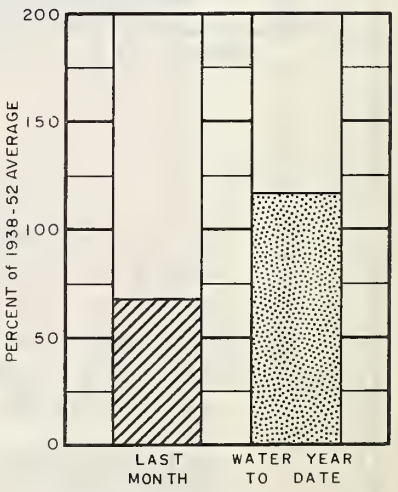
Mid. Fk. Willamette below No. Fk.



Umpqua near Elkton



Rogue at Raygold



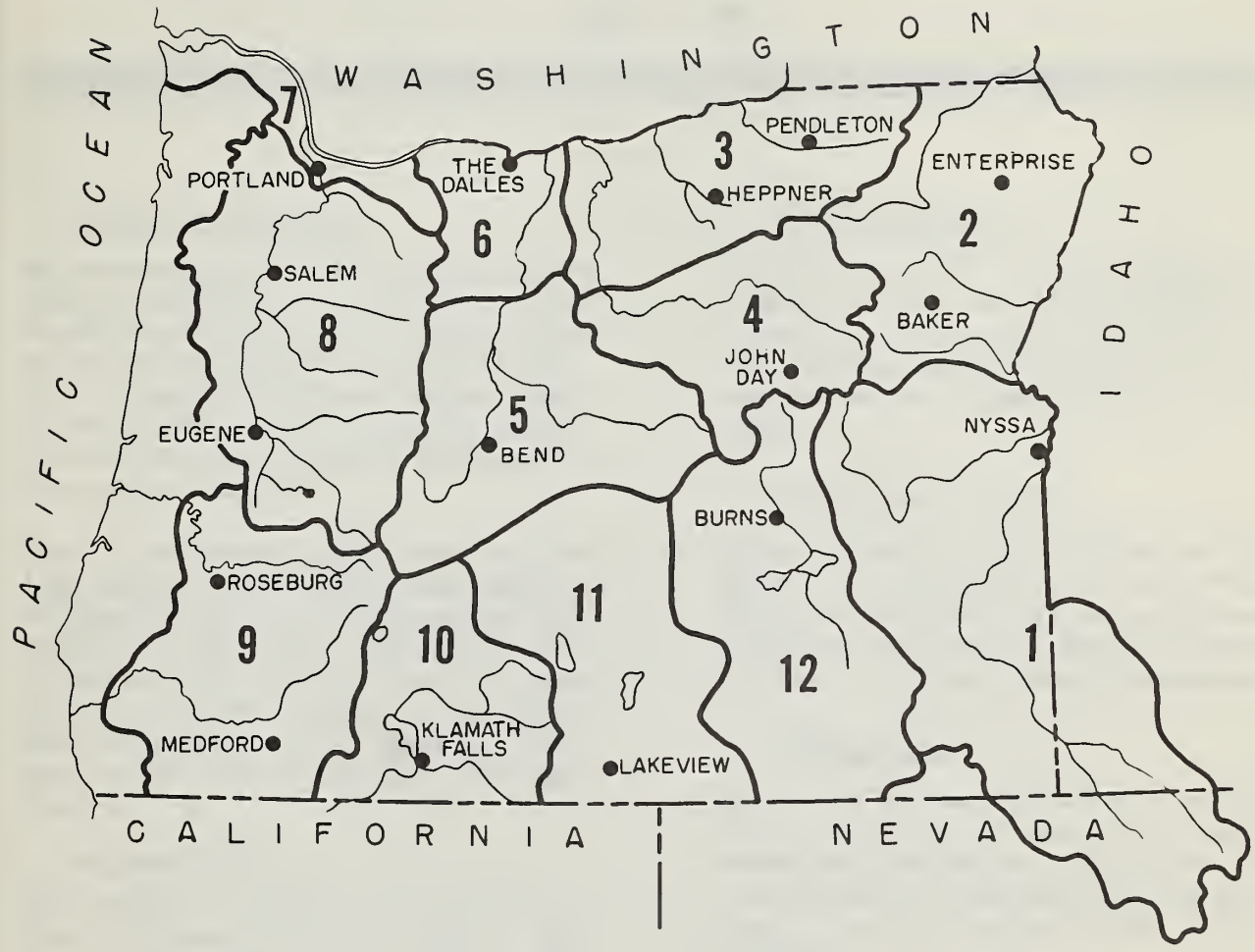
Upper Klamath Lake net inflow

Data furnished by U.S. Geological Survey; The California Oregon Power Co., and North and South Boards of Control Owyhee Project.

Water year begins Oct. 1, 1957.

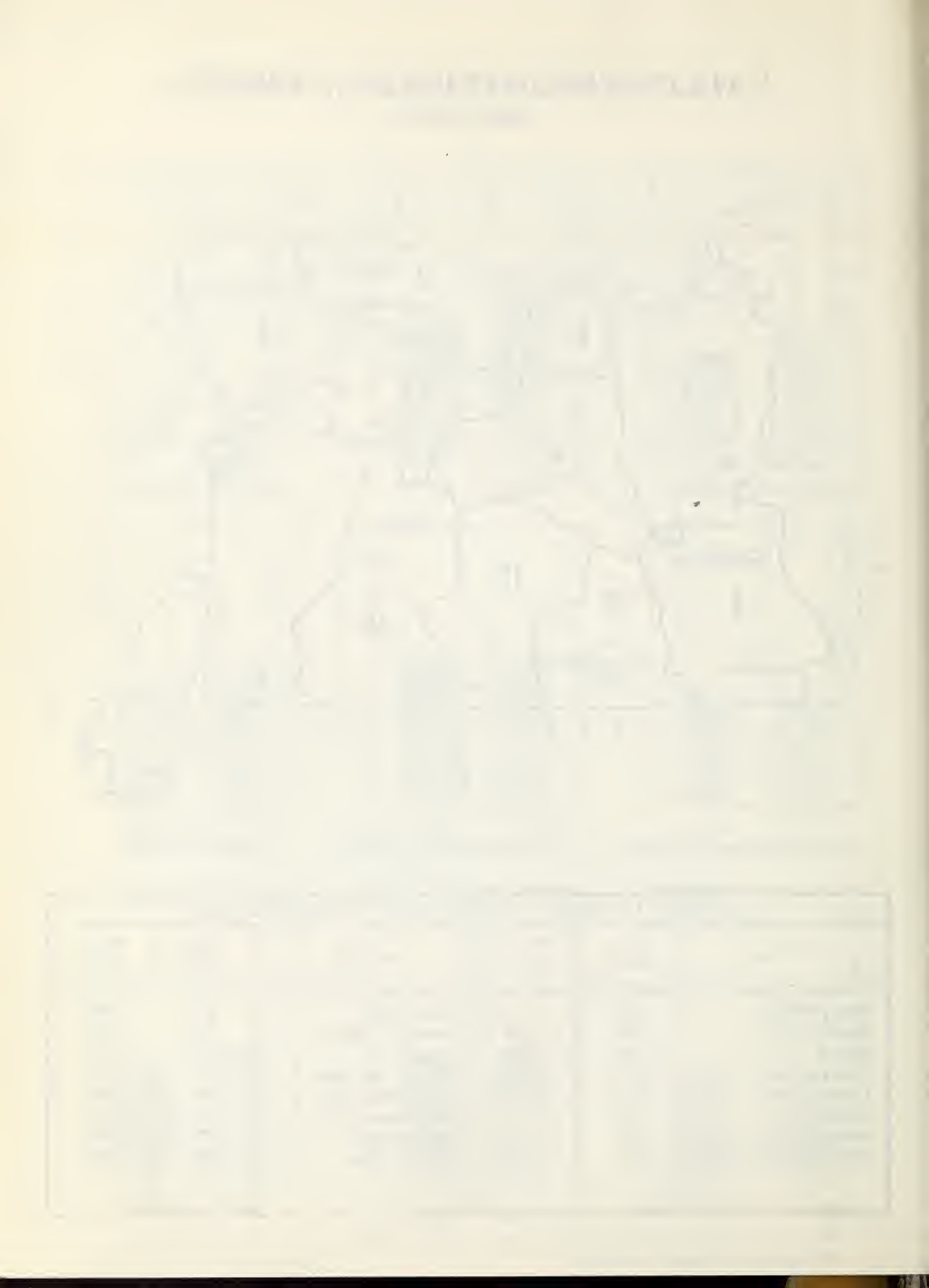
VALLEY PRECIPITATION in OREGON[a]

May 1, 1959



PRECIPITATION as PERCENT of the 1938-52 AVERAGE					
STATION	LAST MONTH	WATER YEAR TO DATE[b]	STATION	LAST MONTH	WATER YEAR TO DATE[b]
Baker Apt.	41	84	Lakeview	27	50
Bend	14	58	Medford Apt.	58	63
Burns	38	63	Nyssa	11	45
Enterprise	52	112	Pendleton Apt.	46	112
Eugene Apt.	46	110	Portland Apt.	48	85
Heppner	c		Roseburg Apt.	34	89
John Day[d]	31	55	Salem Apt.	57	100
Klamath Falls Apt.	37	46	The Dalles	22	87

[a] *Preliminary data furnished by the U.S. Weather Bureau.* [b] *Oct. 1 to date.* [c] *Report delayed.*
[d] *As percent of Canyon City average.*



WATER SUPPLY OUTLOOK
OWYHEE, MALHEUR WATERSHEDS
OREGON

as of
May 1, 1959

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

An extremely poor snow-pack coupled with a nearly dry April indicates no improvement in the extremely poor water outlook for the 1959 irrigation season in Malheur County. Only those lands served from the larger reservoirs can expect reasonably fair water supplies.

Runoff into Owyhee Reservoir will be the lowest since 1934, whereas the Malheur River will flow about the same as in the short year 1955. All water users served from storage facilities are urged to make the most efficient use of water in order to provide some carry-over for next year.

SNOW-COVER

The mountain snow-pack is gone except at snow stations above 7800 feet elevation in the Owyhee. The only Malheur station with snow is Blue Mountain Springs at 5900 feet elevation with 2 inches of snow.

SOIL-MOISTURE

The soil-mantle in the mountain watersheds has not been completely primed at any time this winter. Cool winds and the lack of precipitation have continued to dry the soils.

RESERVOIR STORAGE

Stored water is only 75 percent of normal and 72 percent of last year. There will be very little carry-over for next year unless users practice the most efficient water management.

STREAMFLOW

Forecasts of runoff for the April-September period are 15 percent normal on the Owyhee, 52 percent on the Malheur at Drewsey and 56 percent for the North Fork of the Malheur.

Report prepared by
W T Frost and Manes Barton
U. S Department of Agriculture, Soil Conservation Service
209 S W Fifth Avenue, Portland, Oregon

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WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

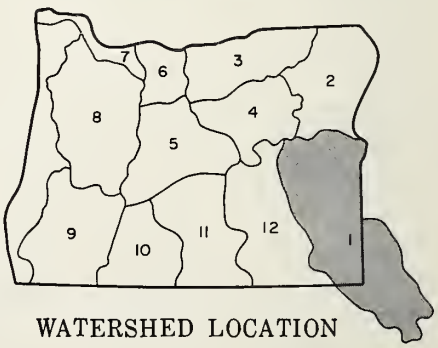
STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Boulder Creek	Fair	Poor	Much above normal rains during the May-June period will be needed to improve these poor outlooks.
Bully Creek	Poor	Poor	
Cow Creek	Poor	Poor	
Jordon Creek	Fair	Poor	
Jordon Valley Irrigotion District	Average	Poor	
McDermitt Creek	Poor	Poor	
Oregon Conyon Creek	Poor	Poor	
Owyhee Project	Average	Fair	
Sucker Creek	Poor	Poor	
Ten Mile Creek	Poor	Poor	
Vole, Oregon Irrigotion District	Average	Fair	
Warm Springs Irrigotion District	Average	Fair	
Willow Creek	Fair	Poor	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
NO.	NAME				
1320	Molheur neor Drewsey	43	April–Sept.	82	52
139	Molheur North Fork ot Beulah [e]	36	April – Sept.	64	56
1234	Owyhee Reservoir net Inflow [h]	70 65 d	April – Sept. April – July March–July	458 440 570	15 15

RESERVOIR STORAGE (1,000 Ac. Ft.)

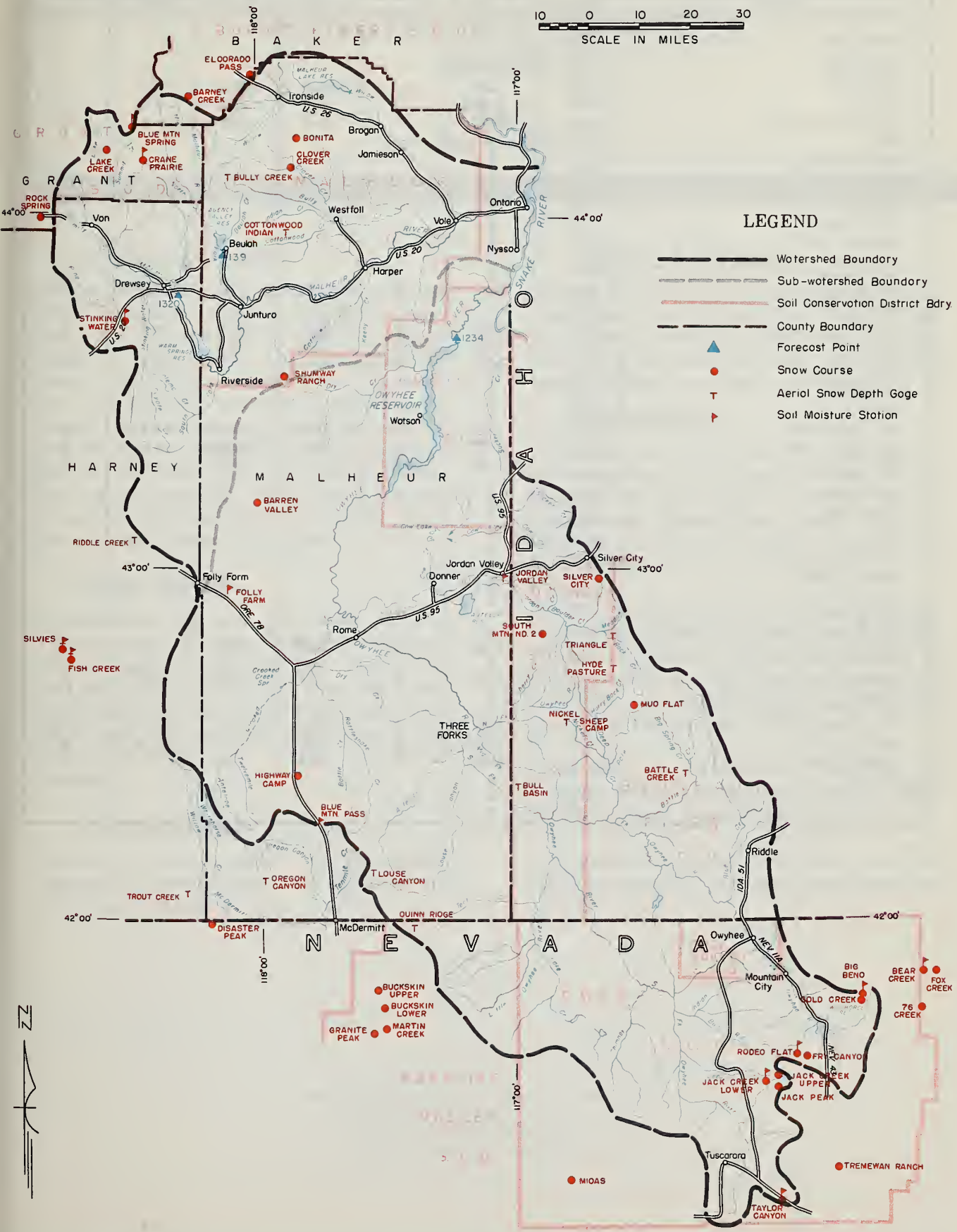
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	NORMAL [b]
Agency Volley	60.0	41.7	59.5	57.0
Antelope	36.5	15.7	- -	30.8 [i]
Owyhee	715.0	485.3	670.1	668.5
Worm Springs	191.0	136.4	191.0	148.9



WATERSHED LOCATION

[a] Assuming normal meteorological conditions. [b] 1938 - '52, 15 year period. [c] Number of years in 1938 - '52 period. [d] Not scheduled. [e] Corrected to natural flow. [f] Aerial snow depth gage; water content estimated. [g] Report delayed [h] USBR records of inflow. [i] 1948 - '50 excepted.

OWYHEE, MALHEUR WATERSHEDS



SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) NORMAL [b]	YEARS OF RECORD [c]
Barney Creek	5950	d					
Barren Valley	4200	d					
Battle Creek [f]	5700	d					
Bear Creek	7800	4-28	31	14.0	25.4	- -	0
Big Bend	6700	4-27	0	0.0	8.9	- -	3
Blue Mountain Springs	5900	4-27	2	1.0	21.8	- -	2
Banita	4600	d					
Buckskin, Lower	6700	d					
Buckskin, Upper	7200	d					
Bull Basin [f]	5600	d					
Bully Creek [f]	5300	d					
Clover Creek	4100	d					
Cottonwood - Indian [f]	4320	d					
Crane Praire	5375	d					
Disaster Peak	6500	d					
Eldorado Pass	4600	5-1	0	0.0	- -	- -	0
Fish Creek [f]	7900	d					
Fox Creek	6800	4-28	0	0.0	6.4	- -	3
Fry Canyon	6700	4-27	0	0.0	6.4	- -	0
Gold Creek	6600	4-27	0	0.0	T	- -	0
Granite Peak	7800	d					
Highway Camp	4300	d					
Hyde Pasture [f]	5800	d					
Jack Creek, Lower	6800	4-27	0	0.0	0.0	- -	0
Jack Creek, Upper	7250	4-27	0	0.0	12.8	- -	0
Jack Peak	8420	4-27	44	17.2	43.6	- -	0
Lake Creek	5120	d					
Louse Canyon [f]	6440	d					
Martin Creek	7200	d					
Midas	5700	d					
Mud Flat	5500	d					
Nickel Sheep Camp [f]	5450	d					
Oregon Canyon [f]	7240	d					
Quinn Ridge [f]	6200	d					
Riddle Creek [f]	5800	d					
Rock Springs	5100	d					
Rodeo Flat	6800	4-27	0	0.0	9.0	- -	0
Shumway Ranch	4500	d					
Silver City	6400	5-3	0	0.0	11.2	5.2	7
Silvies [f]	6900	d					
South Mountain No. 2	6340	d					
Stinking Water	4800	5-1	0	0.0	- -	- -	0
Taylor Canyon	6200	4-27	0	0.0	- -	- -	0
Tremewan Ranch	5700	4-27	0	0.0	- -	- -	0
Triangle [f]	5150	d					
Trout Creek [f]	7800	d					
76 Creek	7100	d					

WATER SUPPLY OUTLOOK
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS
OREGON

as of
May 1, 1959

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

Below normal precipitation during April combined with a "short" snow-pack in this northeastern Oregon region indicates the irrigation water outlook remains fair to poor on the Burnt, Powder and Grande Ronde Rivers except where reservoired water supplies are adequate, as in the case of Unity and Thief Valley Reservoirs. Streams flowing from the Wallowa Mountains will have near normal water supplies.

SNOW-COVER

Snow-cover did not increase during the month. Except at the higher elevations, much of the snow has melted and run off. The current snow-pack is only one-third of that of a year ago at this date except in the high Wallowas, which are near normal.

SOIL-MOISTURE

Soils are well wetted in the upper mountain watersheds and in some of the cultivated areas.

RESERVOIR STORAGE

Unity Reservoir is essentially full and has already spilled some 10,000 acre feet of water. Wallowa Lake has had a slow inflow but is within about 4,000 acre feet of being full.

STREAMFLOW

Forecasts of the April-September streamflow are considerably below normal on Burnt River, Powder River and Grande Ronde River where 57, 63, and 68 percent of normal flows are expected.

Better prospects are in sight for streams flowing from the Wallowa Mountains where forecasts are set at 92 percent on Catherine Creek, 94 percent on the Lostine and 84 percent on Hurricane Creek.

The smaller streams, heading in lower elevations, will have much below normal summer flows.

In general, streamflow will be fairly similar to that measured in 1955.

Report prepared by
W. T. Frost and Manes Barton
U. S. Department of Agriculture, Soil Conservation Service
209 S. W. Fifth Avenue, Portland, Oregon

USDA SCS PORTLAND OREG 1957 M-1853-2

WATER SUPPLY OUTLOOK

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

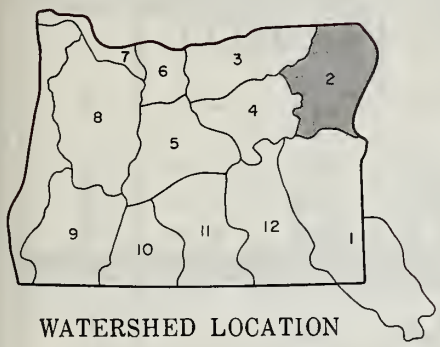
STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Alder Slope	Average	Fair	
Baker Valley	Fair	Poor	
Big Creek	Fair	Poor	
Clover Creek	Poor	Poor	
Cave	Fair	Fair	
Durkee	Fair	Poor	
Eagle Valley	Average	Fair	
Elgin	Fair	Poor	
Enterprise – Joseph	Average	Average	
Herefard – Bridgeport	Average	Fair	
Imnaha River	Average	Average	
LaGrande – Island City	Fair	Poor	
Lostine – Wallawa	Average	Average	
North Pawder River – Wolf Creek	Fair	Poor	
Pine Valley	Average	Average	
Pawder River — Elk Creek	Fair	Poor	
Summerville	Fair	Poor	
Sumpter Valley	Fair	Poor	
Unian – Hot Lake	Average	Fair	
Unity	Fair	Poor	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
NO.	NAME				
1815	Bear near Wallawa	64	April–Sept.	69	93
143	Burnt near Herefard [e]	24	April–Sept.	42	57
185	Catherine near Union	65	April–Sept.	71	92
1816	Grande Ronde at LaGrande	120	April–Sept.	177	68
1814	Hurricane near Joseph	38	April–Sept.	45	84
172	Imnaha at Imnaha	275	April–Sept.	303	91
1810	Lastine near Lastine	117	April–Sept.	124	94
152	Pawder near Baker	40 39	April–Sept. April–July	63 62	63 63
1822	Wallowa East Fark near Joseph [e]	10.3 8.4	April–Sept. April–July	11.3 9.2	91 91

[a] *Assuming normal metearalogicol conditions.* [b] *1938 - '52, 15 year period.* [c] *Number of years in 1938 - '52 period* [d] *Not scheduled* [e] *Corrected to natural flow.*
[f] *Aerial snow depth gage; water content estimated* [g] *Report delayed.* [h] Not surveyed.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS



WATERSHED LOCATION

10 0 10 20 30
SCALE IN MILES
WASHINGTON
OREGON
IDAHO
UMATILLA
UNION
WALLOWA
BAKER
GRANT
MALHEUR
46°00'
45°00'
117°00'
118°00'
TOLLGATE
MEACHAM
Elgin
Wallowa
Summerville
Enterprise
Imnaha
Joseph
La Grande
Cove
Starkey
Union
North Powder
Medical Springs
Haines
Baker
Keating
Halfway
Pine
Richland
Sumpter
Durkee
Hereford
Bridgeport
Unity
Huntington
LUCKY STRIKE
SCHOOLMARM
COUNTY LINE
BEAVER RES.
SUMMIT SPRINGS
CAMP CARSON
ANTHONY LAKE
MOSS SPRINGS
TAYLOR GREEN
SCHNEIDER MEADOWS
EILERTSON MEADOWS
BOURNE
GOODRICH LAKE
GOLD CENTER
TIPTON
BLUE MTN SUMMIT
UNITY RES.
DOOLEY MTN
BARNEY CREEK
ELDORADO PASS
ANEROID LAKE NO. 2
ANEROID LAKE NO. 1
ORE 204
ORE 82
ORE 86
ORE 3
US 30
1816
1815
1810
1814
1822
185
152
143
Wenaha R
Courtney Cr
Joseph Cr
Chesnimnus Cr
Lightning Cr
Cherry Cr
Mud Cr
Wallupa
Tope Cr
Swamp Cr
Whisky Cr
Looking Glass
Phillips
Meadow
McCoy Cr
Jordon
Pork
Ladd
Mill Cr
Little Creek
Sheep Creek
Grouse Cr
Camp Cr
Horse
Hurricane Cr
Prairie Cr
Wallowa Lake
Big Sheep
Catherine Cr
Clover
Wolf
Muddy Cr
Rock Cr
Pine Cr
Eagle
Goose
Powder
Ruckles Cr
Lawrence Cr
Durkee Cr
Sisley Cr
Daly
Dixie
Birch
Burnt
Jud
Camp
Unity Res.
Big Canyon
Indian Cr
Willow
Grande Ronde
Wallowa
Whisky
Beat
Minam
Lostine
Hurricane
Prairie
Wallowa Lake
Little Sheep
Big Sheep
Grouse
Imnaha
Horse
Camp
Lightning
Cherry
Joseph
Chesnimnus
Swamp
Tope
Mud
Wallupa
Courtney
Wenaha
Looking Glass
Phillips
Meadow
McCoy
Jordon
Pork
Ladd
Mill
Little
Catherine
Clover
Wolf
Muddy
Rock
Pine
Eagle
Goose
Powder
Ruckles
Lawrence
Durkee
Sisley
Daly
Dixie
Birch
Burnt
Jud
Camp
Unity Res.
Big Canyon
Indian

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) NORMAL [b]	YEARS OF RECORD [c]
Aneroid Lake No. 1	7480	h					
Aneroid Lake No. 2	7000	h					
Anthony Lake	7125	4-28	51	19.4	36.9	- -	0
Barney Creek	5950	d					
Beover Reservoir	5340	4-29	6	2.5	9.9	- -	0
Blue Mountoin Summit	5098	4-29	0	0.0	5.1	- -	3
Bourne	5800	4-27	15	5.5	18.8	- -	0
Camp Carson	5970	d					
County Line	4800	g					
Dooley Mountain	5430	4-24	0	0.0	7.8	- -	0
Eilertson Meodows	5400	4-26	0	0.0	14.3	- -	1
Eldorado Pass	4600	5-1	0	0.0	- -	- -	0
Gold Center	5340	4-27	T	T	13.2	- -	0
Goodrich Lake	6775	4-22	56	28.2	- -	- -	0
Lucky Strike	5050	4-30	12	4.2	- -	- -	0
Meacham	4300	4-29	0	0.0	3.0	- -	3
Moss Springs	5850	4-28	53	20.3	30.2	- -	1
Schneider Meadows	5400	4-26	45	17.4	- -	- -	0
Schoolmarm	4775	g					
Summit Springs	6000	d					
Toylor Green	5740	d					
Tipton	5100	4-24	0	0.0	7.9	- -	1
Tollgote	5070	4-29	27	12.1	32.7	- -	3

WATER SUPPLY OUTLOOK
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

The irrigation water supply outlook for the next five months in Umatilla, Morrow and Gilliam Counties has not been improved by below-normal April precipitation. It remains fair to poor except for lands served from Cold Springs and McKay Reservoirs which will have satisfactory supplies.

SNOW-COVER

The mountain snow-pack has melted rapidly during the past month. Very little snow remains and it lies at elevations above 5000 feet. This years May 1 snow water content is only 25 percent of last year.

SOIL-MOISTURE

Soils in the mountain watersheds remain well wetted, sustained at their present moisture levels by melting snow.

RESERVOIR STORAGE

Cold Springs Reservoir remains full while McKay lacks but 4000 acre feet of filling. Water users served from these reservoirs will have near normal irrigation season water supplies.

STREAMFLOW

Due to below normal April precipitation forecasts of April-September runoff has been revised downward from 1 to 7 percent from that given last month. McKay Creek and Umatilla River are forecast to flow 54 and 84 percent of normal, respectively. The South Fork of the Walla Walla River is forecast at 70 percent of normal. Streamflow will be similar to 1954 in most cases.

Birch, Butter, Willow, Rhea and Rock Creeks with tributaries leading in the mountain snow zone will have favorable spring season flows but will need May-June rains in order to have adequate late summer streamflow.

Most smaller streams in this area have made their run and their flow will taper off very rapidly unless augmented by heavy May-June rains.

Report prepared by
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209 S. W Fifth Avenue, Portland, Oregon

USDA SCS PORTLAND OREG 1957 M-1853-3

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Foir", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Birch Creek	Average	Fair	
Butter Creek	Average	Fair	
Dry Creek	Fair	Poor	
Dugger Creek	Fair	Poor	
Johnson Creek	Fair	Poor	
McKay Creek	Fair	Poor	
Mill Creek	Fair	Fair	
Mud Creek	Fair	Poor	
Pine Creek	Fair	Poor	
Rhea Creek	Average	Fair	
Rock Creek	Average	Fair	
Umatilla River (Cold Springs Res.)	Average	Fair	
Umatilla River, Main	Average	Fair	
Umatilla River (McKay Res.)	Average	Fair	
Walla Walla River, Little	Fairage	Fair	
Walla Walla River, Main	Fair	Fair	
Walla Walla River, North Fork	Fair	Fair	
Walla Walla River, South Fork	Fair	Fair	
Willow Creek	Average	Fair	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
2213	McKay near Pilot Rock	15.1	April-Sept.	28	54
		15.0	April-July	28	54
2236	Umatilla near Gibbon	74	April-Sept.	87	85
223	Umatilla at Pendleton	140	April-Sept.	167	84
		130	April-July	155	84
214	Walla Walla, South Fork near Milton	50	April-Sept.	71	70
		41	April-July	58	70

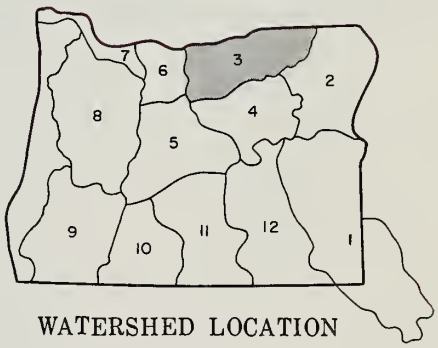
SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	NORMAL [b]	YEARS OF [c] RECORD
Arbuckle Mountain	5400	4-29	0	0.0	10.2	- -	0
Battle Mountain Summit	4340	4-30	0	0.0	- -	- -	0
Emigrant Springs	3925	4-29	0	0.0	2.2	- -	3
Lucky Strike	5050	4-30	12	4.2	- -	- -	0
Meacham	4300	4-29	0	0.0	3.0	- -	3
Pearson Creek	3000	4-30	0	0.0	- -	- -	0
Tollgate	5050	4-29	27	12.1	32.7	- -	3

[a] Assuming normal meteorological conditions. [b] 1938 - '52, 15 year period. [c] Number of years in 1938 - '52 period. [d] Not scheduled. [e] Corrected to natural flow. [f] Aerial snow depth gage; water content estimated. [g] Report delayed.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS





WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	NORMAL [b]
Cold Springs	50.0	50.0	50.0	48.4
Mc Kay	74.0	69.5	74.0	66.9

WATER SUPPLY OUTLOOK
UPPER JOHN DAY WATERSHEDS
OREGON

as of
May 1, 1959

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

Shortage of precipitation during April and an extremely short snowpack combine to indicate a poor to fair water outlook for the Upper John Day watersheds for this season's irrigation operations. Many acres will be short of water by mid-June unless unusually good summer rains are received.

SNOW-COVER

Water content of mountain snow-cover has decreased to less than half of normal. Present snow-cover is only one-fourth of that available a year ago on May 1st.

SOIL-MOISTURE

Watershed soils have been soaking up a considerable amount of the early snow-melt and are now well primed in the higher areas. Lower watershed soils have been drying out rapidly due to shortage of usual April rains which have been about one-third of normal.

STREAMFLOW

Forecasts of irrigation season runoff have been revised downward again to 70 percent of normal on the main John Day and its major tributaries, the North and Middle Forks.

Strawberry Creek is forecast at 73 percent normal for the April-September period. Smaller streams, especially those flowing from south and west slopes, will produce only poor supplies of water this season.

Streamflows this season will be only slightly better than in 1955 but will not quite reach as low as the flows of 1944.

Report prepared by:
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USDA SCS PORTLAND OREG 1957 M-1853-4

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Beech Creek	Poor	Poor	
Beech Creek-Fox-Long Creek	Poor	Poor	
Bridge-Mountain Creeks	Poor	Poor	
Camas Creek	Fair	Fair	
Cherry Creek	Poor	Poor	
Indian-Pine Creeks	Fair	Poor	
John Day River, Main Fork	Fair	Fair	
John Day River, Mid. Fork	Fair	Fair	
John Day River, North Fork	Fair	Fair	
John Day River, South Fork	Fair	Poor	
Monument-Kimberly	Fair	Poor	
Strawberry Creek	Fair	Fair	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

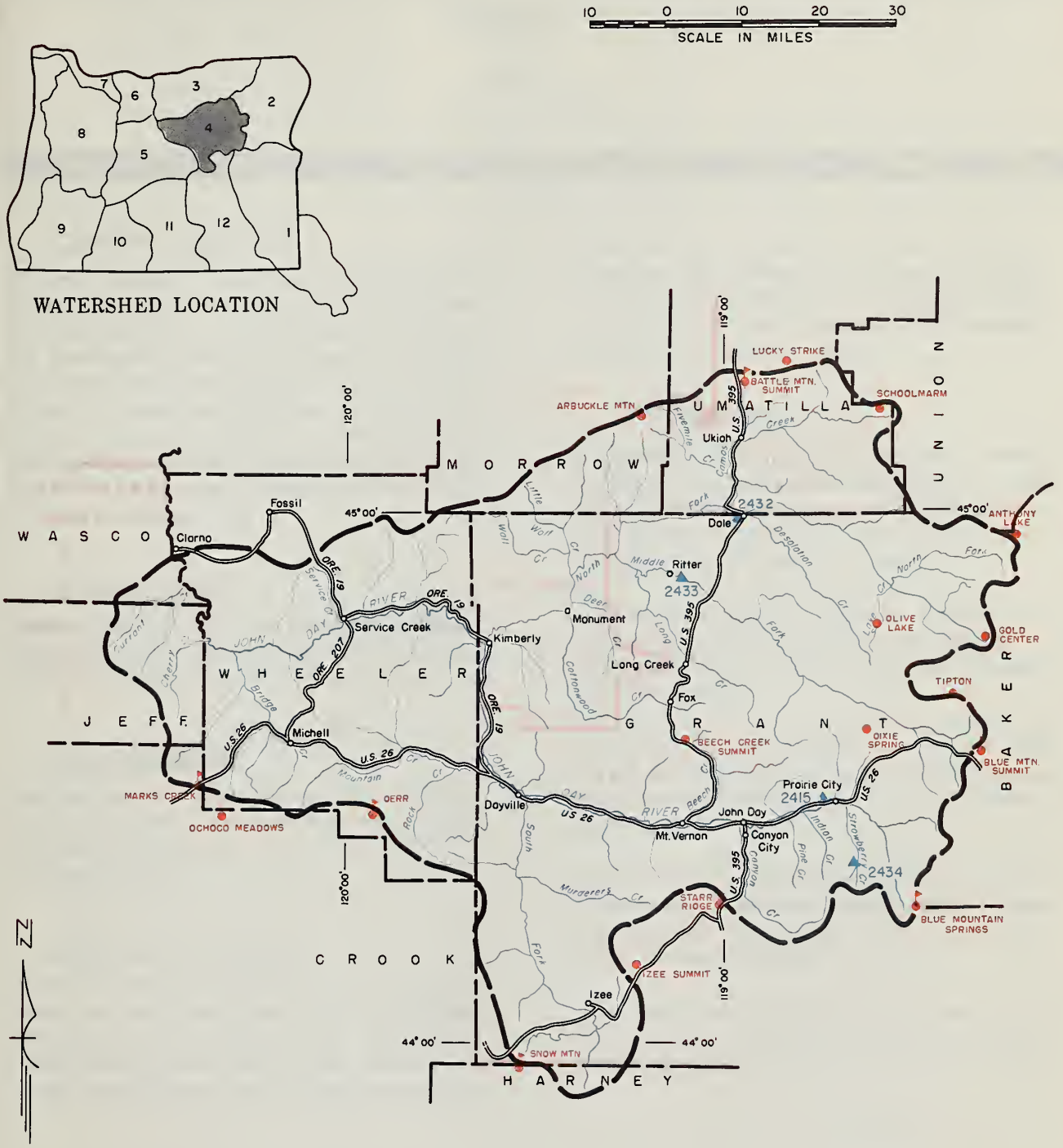
FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
2415	John Day at Prairie City	35	April-Sept.	50	70
		32	April-July	45	71
2433	John Day, Mid. Fork at Ritter	85	April-Sept.	122	70
2432	John Day, North Fork near Dale	175	April-Sept.	248	71
2434	Strawberry near Prairie City	6.0	April-Sept.	8.3	73

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	NORMAL [b]	YEARS OF [c] RECORD
Anthony Lake	7125	4-28	51	19.4	36.9	- -	0
Arbuckle Mountain	5400	4-29	0	0.0	10.2	- -	0
Battle Mountain Summit	4340	4-30	0	0.0	- -	- -	0
Beech Creek Summit	4800	4-27	0	0.0	0.0	- -	1
Blue Mountain Springs	5900	4-27	2	1.0	21.8	- -	2
Blue Mountain Summit	5098	4-29	0	0.0	5.1	- -	3
Derr	5670	d					
Dixie Springs	6650	d					
Gold Center	5340	4-27	T	T	13.2	- -	0
Izee Summit	5293	4-27	0	0.0	8.2	- -	2
Lucky Strike	5050	4-30	12	4.2	- -	- -	0
Marks Creek	4540	g					
Ochoco Meadows	5200	d					
Olive Lake	6000	4-27	30	12.8	30.1	- -	2
Schoolmarm	4775	g					
Snow Mountain	6300	d					
Starr Ridge	5156	4-27	0	0.0	0.0	- -	2
Tipton	5100	4-24	0	0.0	7.9	- -	1

[a] *Assuming normal meteorological conditions.* [b] *1938-'52, 15 year period.* [c] *Number of years in 1938-'52 period.* [d] *Not scheduled.* [e] *Corrected to natural flow.*
[f] *Aerial snow depth gage; water content estimated.* [g] *Report delayed.*

UPPER JOHN DAY WATERSHEDS



LEGEND

- Watershed Boundory
- Sub-wotershed Boundory
- Soil Conservotion District Bdry.
- County Boundary
- Forecost Point
- Snow Course
- Soil Moisture Station

WATER SUPPLY OUTLOOK
UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

Exceptionally low precipitation during April combined with an extremely short snow-pack indicates an extremely poor irrigation water outlook for the Deschutes-Crooked area of central Oregon except for those lands served by the larger irrigation reservoirs. These lands have satisfactory supplies for this season's operation.

SNOW-COVER

Water content of the mountain snow-pack is only 42 percent of normal, and only one-third of last year.

SOIL-MOISTURE

Soils in the mountain watersheds have been well wetted but have been drying out rapidly due to lack of precipitation.

RESERVOIR STORAGE

Stored water supplies are 144 percent of normal and will furnish satisfactory supplies for the North Unit, Arnold and Lone Pine Districts. Some shortages can be expected in the late season in the Central Oregon and Tumalo Irrigation Districts. The Ochoco Irrigation District will have just barely enough water for this season.

STREAMFLOW

Forecasts of April-September runoff remain relatively unchanged. The main Deschutes River is forecast at 74 percent normal; the Little Deschutes at 50 percent normal.

Squaw Creek and Tumalo Creek are forecast at 78 and 71 percent of normal respectively for the irrigation season.

Crooked River is estimated to run only 40 percent normal with inflow to Ochoco Reservoir set at 36 percent.

Trout Creek in Jefferson County and other small streams heading at lower elevations can expect an extremely poor water season.

The general runoff pattern is in many ways similar to that of 1944 and 1945.

Report prepared by
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USDA SCS PORTLAND, OREG. 1959 M-1853-5

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Foir", "Average" or "Excellent".

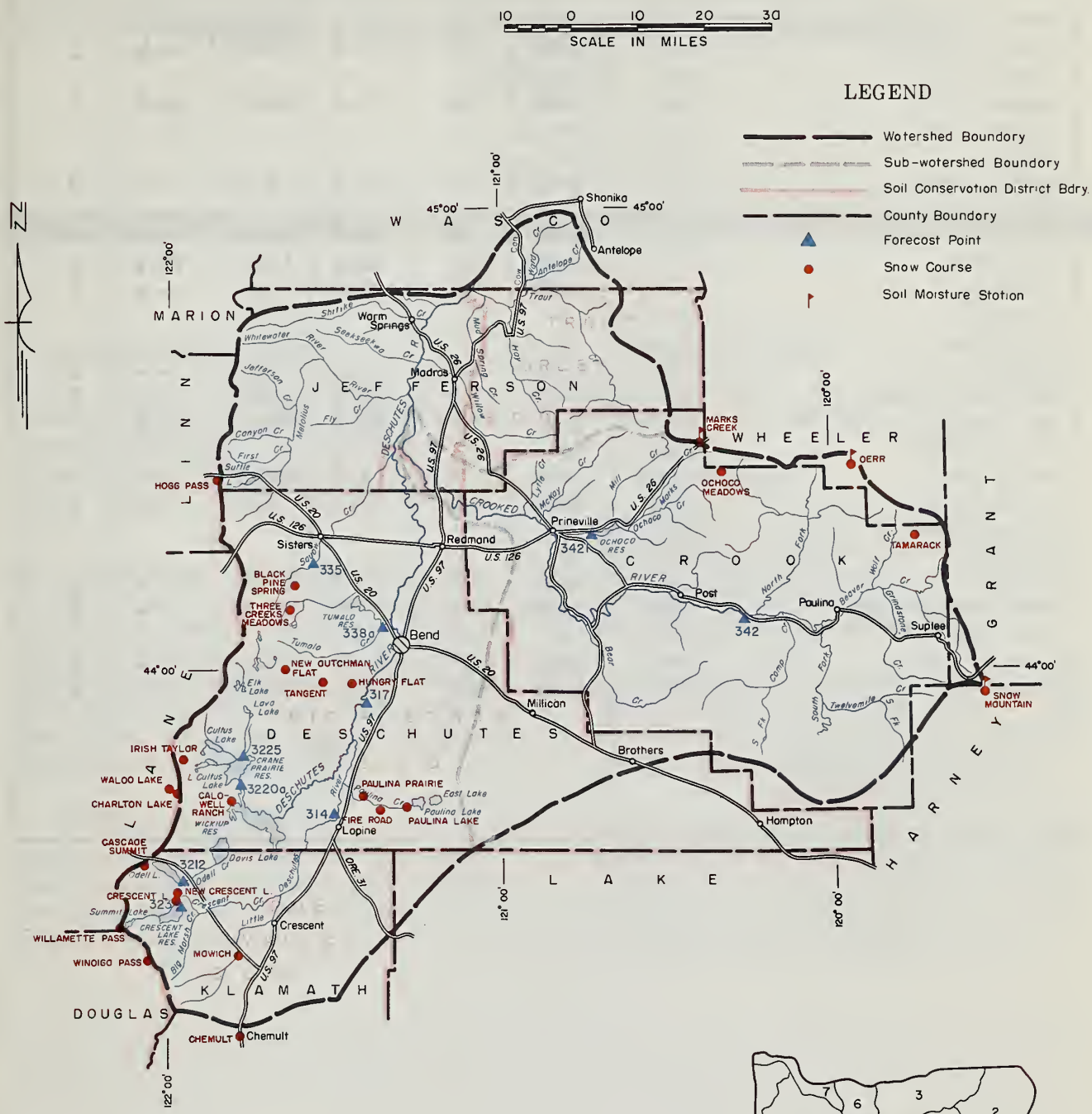
STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Arnold Irrigation District	Average	Average	Only unusually heavy precipitation during the May-June period can improve these fair and poor outlooks.
Bear Creek	Poor	Poor	
Beaver Creek	Poor	Poor	
Camp Creek	Poor	Poor	
Central Oregon Irrigation District	Average	Fair	
Crooked River	Poor	Poor	
Deschutes River	Fair	Fair	
Hay-Trout Creeks	Poor	Poor	
Lone Pine Irrigation District	Average	Average	
Mill Creek	Poor	Poor	
North Unit Irrigation District	Average	Average	
Ochoco Creek	Poor	Poor	
Ochoco Irrigation District	Fair	Average	
Sisters Irrigation District	Fair	Poor	
Snow Creek Irrigation District	Fair	Poor	
Squaw Creek Irrigation District	Fair	Poor	
Swalley Ditch	Excellent	Excellent	
Tumalo Project	Average	Fair	
Walker Basin Irrigation District	Fair	Poor	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
NO.	NAME				
3220A	Crane Prairie Reservoir net inflow	75	April - Sept.	121	62
323	Crescent at Crescent Lake [e]	9.0	April - Sept.	21	43
342	Crooked near Post	5.0	April - Sept.	124 [g]	40
317	Deschutes at Benham Falls [e]	380	April - Sept.	511	74
		255	April - July	346	74
3225	Deschutes below Snow Creek	36	April - Sept.	60	60
314	Deschutes, Little near Lapine [e]	45	April - Sept.	90	50
		40	April - July	79	51
3421	Ochoco Reservoir net inflow	10.0	April - Sept.	28	36
3212	Odell near Crescent	22	April - Sept.	29	76
335	Squaw near Sisters	38	April - Sept.	49	78
338A	Tumalo near Bend [e]	34	April - Sept.	48	71

[a] *Assuming normal meteorological conditions.* [b] *1938 - '52, 15 year period.* [c] *Number of years in 1938 - '52 period.* [d] *Not scheduled.* [e] *Corrected to natural flow.*
[f] *Aerial snow depth gage; water content estimated.* [g] *Report delayed.* [h] *1938 - '39 excepted.* [i] *1938 - '42 excepted*

UPPER DESCHUTES, CROOKED WATERSHEDS


10 0 10 20 30
SCALE IN MILES
LEGEND
Watershed Boundary
Sub-watershed Boundary
Soil Conservation District Bdry.
County Boundary
Forecast Point
Snow Course
Soil Moisture Station
N
Shonika
Antelope
Warm Springs
Madras
Prineville
Redmond
Sisters
Bend
Millican
Brothers
Hampton
Lapine
Crescent
Chemult
Post
Paulina
Suplee
Marks Creek
Ochoco Meadows
Oerr
Tamarack
Snow Mountain
Hogg Pass
Black Pine Spring
Three Creeks Meadows
New Gutchman Flat
Tangent
Hungry Flat
Irish Taylor
Waloo Lake
Charlton Lake
Cascade Summit
Crescent L.
New Crescent L.
Willamette Pass
Winoigo Pass
Mowich
Chemult
Paulina Prairie
Paulina Lake
East Lake
Fire Road
Calo Well Ranch
Wickiup Res.
Crane Prairie Res.
Crescent Lake Res.
Tumalo Res.
Ochoco Res.
MARION
JEFFERSON
WHEELER
GRANT
CROOK
DESCHUTES
LINN
KLAMATH
LAKE
DOUGLAS
HARNEY
WASCO
Deschutes River
Crooked River
Ochoco
Beaver
Twelvemile
Tumalo
Squaw
Whitewater River
Seaksecawa Cr.
Shitike
Jefferson Cr.
Metolius
Fly
Conyon Cr.
First Suttle
Suttle
Trout
Antelope Cr.
Hot Springs
Willow
Lytle Cr.
McKay
Mill
Marks
Ochoco
North Fork
Well
Grindstone
Bear
Camp
South Fork
Odell L.
Odell
Davis Lake
Summit Lake
Little
Big Marsh
Lava Lake
Elk Lake
Cultus Lake
L. Cultus Lake
Paulina Lake
Dry
Indian
Squaw
Tumalo
Crescent
Deschutes
Odell
Little
Big Marsh
Crescent Lake Res.
Wickiup Res.
Crane Prairie Res.
Tumalo Res.
Ochoco Res.
Ochoco
Beaver
Twelvemile
Grindstone
Bear
Camp
South Fork
North Fork
Well
Mill
Marks
Lytle Cr.
McKay
Willow
Hot Springs
Trout
Antelope Cr.
Whitewater River
Seaksecawa Cr.
Shitike
Jefferson Cr.
Metolius
Fly
Conyon Cr.
First Suttle
Suttle
Squaw
Tumalo
Elk Lake
Lava Lake
Cultus Lake
L. Cultus Lake
Paulina Lake
Dry
Indian
Squaw

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) NORMAL [b]	YEARS OF [c] RECORD
Black Pine Spring	4600	4-28	0	0.0	0.0	- -	1
Caldwell Ranch	4400	d					
Cascade Summit	4880	4-28	24	9.9	30.8	32.7	7
Charlton Lake	5750	d					
Chemult	4760	d					
Crescent Lake	4760	4-23	0	0.0	0.0	- -	3
Derr	5670	d					
Fire Road	5050	4-22	0	0.0	0.0	- -	0
Hogg Pass	4755	4-28	51	22.4	48.5	57.2	6
Hungry Flat	4400	4-27	0	0.0	0.0	- -	1
Irish-Taylor	5500	d					
Marks Creek	4540	g					
Mowich	4700	4-23	0	0.0	0.0	- -	0
New Crescent Lake	4800	4-23	0	0.0	9.9	- -	1
New Dutchman Flat *No. 2**	6400	4-27	66	32.8	68.1	65.4	7
Ochoco Meadows	5200	d					
Paulina Lake	6330	4-22	7	3.6	24.7	- -	0
Paulina Prairie	4285	4-22	0	0.0	0.0	- -	0
Snow Mountain	6300	d					
Tamarack	4800	d					
Tangent	5400	4-27	T	T	21.7	- -	1
Three Creeks Meadows	5600	4-28	T	T	22.3	- -	4
Waldo Lake	5500	d					
Willamette Pass	5600	4-24	47	20.3	50.3	- -	4
Windigo Pass	5800	4-23	42	19.1	55.6	- -	4

**New snow course replacing New Dutchman Flat; past record is for old course.*

WATER SUPPLY OUTLOOK
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS
OREGON

as of
May 1, 1959

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

Much below normal precipitation during April combined with a below normal snow-pack in the mountains indicates a reduced 1959 irrigation water supply which will be fair to poor.

Both Hood River and White River will produce only fair water supplies with late season shortages a certainty. The Mile Creeks and Mill Creek have already made their major flow and will taper off much earlier than usual as is the case with small tributaries of White River.

SNOW-COVER

Water content of the mountain snow-cover is about three-fourths normal but only half of that available last year at this date.

SOIL-MOISTURE

The soil-mantle in the upper watersheds is well wetted.

STREAMFLOW

Forecasts of runoff during the irrigation season (April-September) have been revised downward to 78 percent of normal for Hood River and 72 percent of normal for White River.

Flow of small tributaries of the larger rivers as well as of Mile and Mill Creeks will be exceptionally short this season.

Only frequent and copious rains can improve the water outlook to a satisfactory situation. The current outlook is very similar to the streamflow that resulted in 1947.

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USDA SCS PORTLAND ORE. 1957 M-1853-6

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Aldridge Ditch	Fair	Poor	
Badger Creek	Fair	Poor	
Dee Irrigation District	Fair	Poor	
East Fark Irrigation District	Fair	Poor	
Farmers Irrigation District	Fair	Poor	
Glacier Irrigation District	Fair	Poor	
Hood River Irrigotion District	Fair	Poor	
Juniper Flat	Fair	Poor	
Middle Fork Irrigation District	Fair	Poor	
Mile Creeks	Poor	Poor	
Mill Creek	Poor	Poor	
Maunt Hood Irrigotion District	Fair	Poor	
Rack-Gate-Threemile Creeks	Fair	Poor	
Tygh Creek	Fair	Poor	
White River	Fair	Poor	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
437	Haod near Haad River [e]	240	April-Sept.	306	78
		205	April-July	260	79
438	Hood, West Fark near Dee	115	April-Sept.	147	78
		100	April-July	127	79
3613	White belaw Tygh Valley	110	April-Sept.	152	72
		100	April-July	135	74

SNOW

SNOW COURSE NAME	ELEVATION	CURRENT INFORMATION: DATE OF SURVEY	CURRENT INFORMATION: SNOW DEPTH (Inches)	CURRENT INFORMATION: WATER CONTENT (Inches)	PAST RECORD: WATER CONTENT (Inches) LAST YEAR	PAST RECORD: WATER CONTENT (Inches) NORMAL [b]	YEARS OF [c] RECORD
Braoks Meadows	4300	d					
Clear Lake	3800	4-29	0	0.0	0.0	- -	0
Greenpoint Reservoir	3400	d					
Phlox Point	5600	4-28	99	45.8	83.1	59.1	13
Red Hill	4400	d					
Still Creek	3700	4-29	18	8.9	12.1	14.9	12
Tilly Jane	6000	d					

[a] *Assuming normal meteorological conditions.* [b] *1938-'52, 15 year period.* [c] *Number of years in 1938-'52 period.* [d] *Not scheduled.* [e] *Corrected to natural flow.*
[f] *Aeriol snow depth goge; water content estimoted.* [g] *Report delayed.*

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course

WATERSHED LOCATION

WATER SUPPLY OUTLOOK
LOWER COLUMBIA WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

The 1959 water supply outlook for the spring and summer flow of the Columbia River remains close to normal. Precipitation during April was above normal in the northern portion of the basin and well below normal throughout the southern half - a pattern that has prevailed throughout the 1959 season.

SNOW-COVER

Snow-melt during the month of April on the high elevations of the Columbia Basin in Canada and the United States was about normal. In general the snow on the lower elevation snow courses is melting faster than normal. At these sites the snow-cover is unusually light or the ground is completely bare.

SOIL-MOISTURE

Soil-moisture conditions beneath the snow-pack are now changing as a result of the snow-melt. Measurements of soil-moisture status indicate that the soils are near or at maximum water-holding capacity in most areas at high elevations. However, as a result of the warm dry April, measurements at lower elevation soil-moisture sites indicate a definite decline in moisture. Rain that falls at this time will have to overcome an unusually dry soil condition at lower elevations before any runoff will occur, particularly in the southern half of Columbia Basin.

RESERVOIR STORAGE

Storage in irrigation reservoirs continues to be well above normal. Operation of multiple-purpose reservoirs is proceeding in accordance with operational plans directed at giving maximum results for flood control, power and irrigation use. These operations make possible the storage of approximately 3 to 4 million acre feet of water during the May-June period.

STREAMFLOW

The forecasts presented are for the natural flow that would occur in the river if no upstream management were performed. The forecast for the Columbia River at The Dalles for the April-September period is 99 percent of the 1938-52 normal flow. The actual flow during the May-June period will be reduced approximately 3 to 4 million acre feet by upstream storage operations.

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USDA SCS PORTLAND OREG 1957 M-1853-7

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
Columbia at The Dalles	96,500	Apr.-Sept.	97,000	99
	66,500	Apr.-June	65,900	101
	53,500	May-June	51,800	103

HISTORICAL DATA (Columbia River at The Dalles)

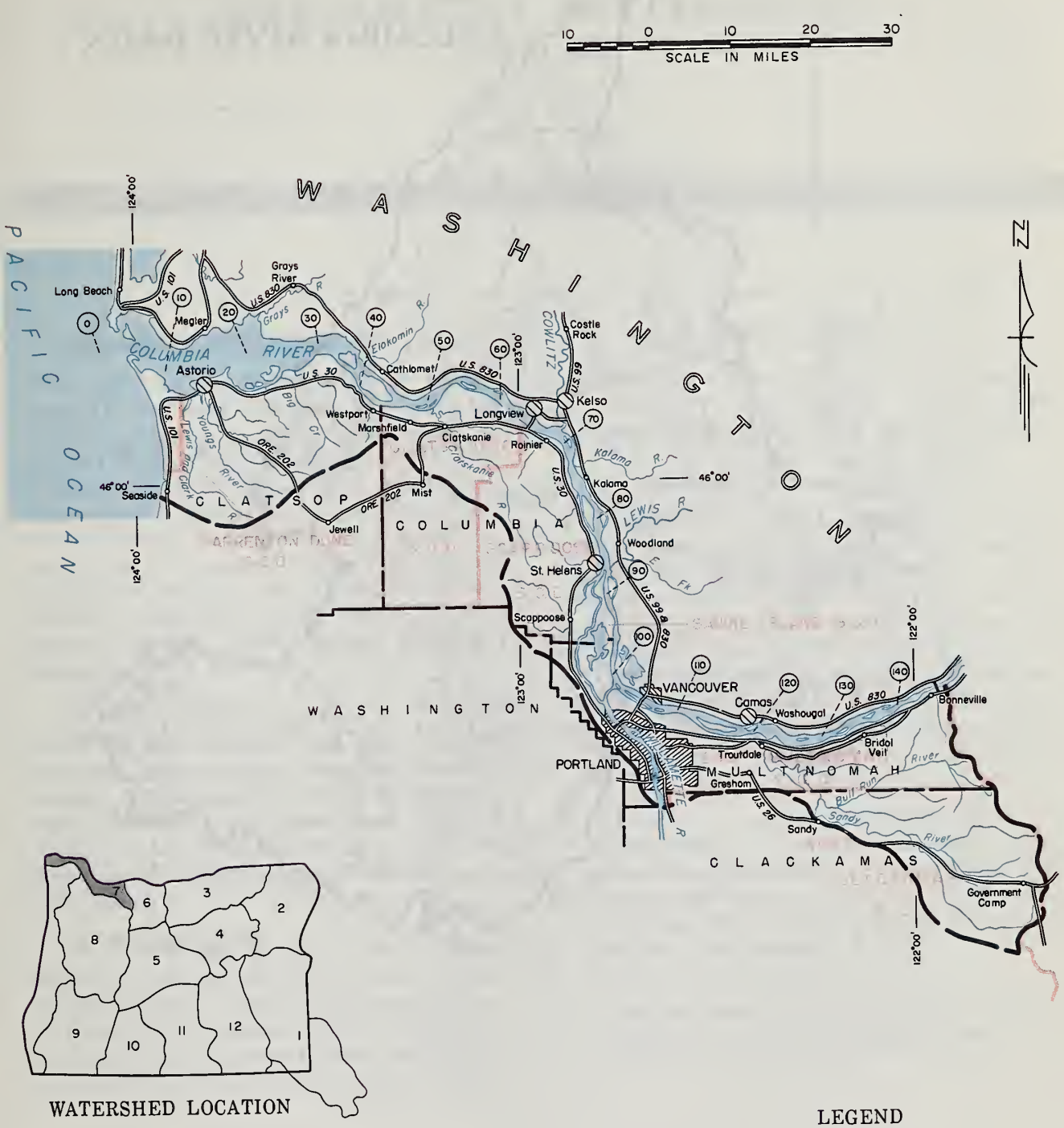
YEAR	STREAMFLOW [c] (1,000 A.F.)			PEAK [e] (1,000 C.F.S.)	DATE
	APR.-SEPT.	APR.-JUNE	MAY-JUNE		
1938	103,400	72,600	56,700	605	May 31
1939	80,800	53,300	40,500	387	May 21
1940	77,400	52,100	38,900	369	June 5
1941	69,100	43,500	33,500	272	June 11
1942	90,300	58,100	44,500	428	June 18
1943	115,000	75,300	52,400	541	June 21
1944	61,900	39,200	32,100	326	June 19
1945	81,500	54,600	47,300	505	June 8
1946	108,000	75,400	59,600	581	May 30
1947	100,300	70,000	56,800	536	May 11
1948	130,500	94,600	81,900	999	May 31
1949	95,700	71,400	56,000	622	May 18
1950	120,600	74,700	61,200	744	June 25
1951	113,000	75,600	59,100	597	May 26
1952	107,700	77,500	57,300	557	May 28
1938-52 Avg.	97,000	65,900	51,800	538	
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,200	97,100	75,800	815	June 3
1957	115,200	79,200	67,200	700	May 22
1958	97,696	71,953	58,644	593	May 31

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria) [f]

VANCOUVER [g] GAGE (WEATHER BU.)	FLOW AT THE DALLES (1000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE IS.	SCAPPOOSE	DEER IS.	RAINIER	BEAVER	WOODSON
		RIVER MI.						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35	1,290	42.2	35.3	34.4	29.6	22.9	18.3	16.2
34 (1894)	1,220	41.3	34.4	33.4	28.5	22.0	17.5	15.5
33	1,150	40.4	33.3	32.3	27.5	21.0	16.7	14.8
32	1,090	39.5	32.2	31.2	26.5	20.0	15.9	14.1
31	1,030	38.5	31.2	30.1	25.5	19.1	15.1	13.4
30 (1948)	970	37.4	30.1	29.0	24.6	18.3	14.4	12.7
29 (1876)	920	36.2	29.1	28.1	23.9	17.7	13.8	12.1
28	870	35.1	28.1	27.3	23.3	17.2	13.3	11.6
27	820	33.8	27.1	26.4	22.4	16.6	12.8	11.2
26	770	32.5	26.1	25.3	21.4	15.8	12.3	10.8
(1933)								
25 (1950)	730	31.8	25.1	24.1	20.4	15.1	11.9	10.5
24 (1957)	690	30.3	24.0	23.0	19.5	14.5	11.6	10.3
23	650	29.5	22.9	21.9	18.7	13.9	11.3	10.1
22 (1953)	610	28.6	21.9	20.8	17.6	13.3	11.0	9.9
21	570	27.6	21.0	19.8	16.6	12.7	10.7	9.7
20	540	26.5	20.1	18.9	15.7	12.2	10.3	9.5
19	510	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	480	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	450	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	430	22.4	16.5	15.5	13.0	10.5	9.3	8.7
15	400	21.4	15.5	14.4	12.0	9.8	8.8	8.3

[a]Assuming normal meteorological conditions. *[b]1938-'52, 15 year period.* *[c]Observed flow corrected for storage in F.D.R., Kootenai, Pend Oreille, Flathead, Hungry Horse, Lake Chelan, Coeur d'Alene and Grand Coulee Equalizer.* *[d]Not scheduled.* *[e]Observed peak*

LOWER COLUMBIA WATERSHEDS



WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- (50) River Miles

[f] Based on Corps of Engineers automatic water stage recorder data.
[g] Vancouver Weather Bureau gage zero is 2.64' above M.S.L. All other readings are in feet above M.S.L.



"The Conservation of Water begins with the Snow Survey"

WATER SUPPLY OUTLOOK
WILLAMETTE WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

The 1959 irrigation season water supply outlook in the Willamette Valley has not been improved by April rainfall which was below normal. The below normal mountain snow-pack, coupled with the deficient April rainfall, will produce only fair to poor irrigation water supplies except on those streams where reservoirs will sustain the summer months flow to near average amounts.

SNOW-COVER

Water content of the west side Cascade snow-pack is only 43 percent normal. The snow is melting rapidly with the effective snow line at 4200 feet in the southern part of the basin and dropping to 3500 feet in the north part.

SOIL-MOISTURE

Mountain soils are well wetted. End of the month (April) and early May rainfall will sustain this condition as well as improve the moisture condition of hill and valley soils.

RESERVOIR STORAGE

Storage in the five multiple purpose reservoirs operated by the Corps of Army Engineers is 111 percent normal.

STREAMFLOW

Forecast of April-September runoff has been revised taking into account the low April precipitation. This has resulted in a lowering of the forecasts as follows: Clackamas, 78 percent; North Santiam, 68 percent; South Santiam, 65 percent; McKenzie, 74 percent; Middle Fork Willamette, 63 percent; Row River, 64; and the Willamette at Salem, 76 percent.

Flow of streams heading at lower elevations in the Cascade Range such as the Molalla, Calapooya and Pudding River will be only fair during the spring season and poor during the summer.

Flow of many of the streams will be similar to the 1944 water year.

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USDA-SCS PORTLAND, OREG. 1957 M-1853-8

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Calapooya	Fair	Poor	
Clackamas	Fair	Fair	
McKenzie	Fair	Fair	
Mollalla	Fair	Poor	
Santiam, North	Average	Fair	
Santiam, South	Fair	Poor	
Willamette, Coast Fork	Fair	Fair	
Willamette, Middle Fork	Fair	Fair	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
5911	Clackamas at Big Bottom	122	April-Sept.	164	74
		100	April-July	133	75
593	Clackamas near Cazadero	605	April-Sept.	777	78
		520	April-July	669	78
592	Clackamas above Three Lynx	455	April-Sept.	599	76
		385	April-July	507	76
534	McKenzie at Mckenzie Bridge	420	April-Sept.	565	74
		320	April-July	430	74
535	McKenzie near Vida	880	April-Sept.	1195	74
		720	April-July	978	74
598	Oak Grove Fork above Power Intake	145	April-Sept.	186	78
		115	April-July	145	79
5215	Row near Dorena	65	April-Sept.	101	64
		62	April-July	96	65
554	Santiam, North at Mehama [e]	575	April-Sept.	842	68
		500	April-July	748	67
5516	Santiam, South at Waterloo	365	April-Sept.	558	65
		340	April-July	525	65
5117	Willamette, Mid. Fork below North Fork near Oakridge	500	April-Sept.	798	63
		450	April-July	705	64
516	Willamette at Salem [e]	3300	April-Sept.	4355	76
		2950	April-July	3863	76

[a] *Assuming normal meteorological conditions* [b] *1938-'52, 15 year period.* [c] *Number of years in 1938-'52 period.* [d] *Not scheduled.* [e] *Corrected to natural flow.*
[f] *Aerial snow depth gage; water content estimated.* [g] *Report delayed.* [h] *1938-42 excepted* [i] *1938-41 excepted.*

WILLAMETTE WATERSHEDS


LEGEND
Watershed Boundary
Sub-watershed Boundary
Soil Conservation District Bdry.
County Boundary
Forecast Point
Snow Course
SCALE IN MILES
10 0 10 20 30
COLUMBIA
MULTNOMAH
WASHINGTON
CLACKAMAS
HOOD RIVER
WASCO
JEFFERSON
DESCHUTES
KLAMATH
LINCOLN
TILLAMOOK
YAMHILL
POLK
MARION
LINN
BENTON
DOUGLAS
PORTLAND
Banks
North Plains
Forest Grove
Hillsboro
Beaverton
Tualatin
Sherwood
Newberg
McMinnville
Amity
Willamina
Sheridan
Valley Junction
Dallas
Monmouth
Independence
SALEM
Stayton
Sublimity
Mill City
Detroit
Albany
Corvallis
Lebanon
Sweet Home
Monroe
Harrisburg
Junction City
EUGENE
Springfield
Goshen
Cottage Grove
Oakridge
Oregon City
Canby
Molalla
Mt. Angel
Silverton
Sandy
Government Camp
Timothy Lake
Lake Harriet
Peavine Ridge
Big Bottom
Clackamas Lake
Still Creek
Clear Lake
Phlox Point
Detroit Town
Detroit Dam
Detroit Res
Whitewater Bridge
Marion Forks
Santiam Junction
Hogg Pass
Big Lake
Clear Lake
McKenzie
Dead Horse Grade
White Branch Slide
Lost Creek Ranch
McKenzie Bridge
Vida
Waldo Lake
Charlton Lake
Oakridge
Oakridge Springs
Layng Creek
R.R. Overpass
Salt Creek Falls
Cascade Summit
Willamette Pass
Meridian Dam
Lookout Point Res
Dorena Res.
Cottage Grove Res
Fern Ridge Res
Shellund Park
Weaver Cr.
Golden Curry Cr.
Champion
Mary's Peak
Mill City
Detroit Dam
Detroit Res
Government Camp
Timothy L.
Clackamas Lake
Still Creek
Clear Lake
Phlox Point
Peavine Ridge
Big Bottom
Lake Harriet
Whitewater Bridge
Marion Forks
Santiam Junction
Hogg Pass
Dead Horse Grade
White Branch Slide
Lost Creek Ranch
McKenzie Bridge
Vida
Waldo Lake
Charlton Lake
Oakridge Springs
Layng Creek
R.R. Overpass
Salt Creek Falls
Cascade Summit
Willamette Pass
Meridian Dam
Lookout Point Res
Dorena Res.
Cottage Grove Res
Fern Ridge Res
Shellund Park
Weaver Cr.
Golden Curry Cr.
Champion
Mary's Peak
US 26
US 99W
US 99
US 20
ORE 18
ORE 219
ORE 213
ORE 22
ORE 58
ORE 126
ORE 99
ORE 99E
ORE 99W
ORE 34
ORE 228
ORE 126
ORE 58
ORE 99

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) NORMAL [b]	YEARS OF [c] RECORD
Big Bottom	2118	5-1	0	0.0	- -	- -	2
Cascade Summit	4880	4-28	24	9.9	30.8	32.7	7
Champian	4500	d					
Charlton Lake	5750	d					
Clackamas Lake	3400	d					
Clear Lake	3800	4-29	0	0.0	0.0	- -	3
Dead Horse Grade	3800	4-29	0	0.0	5.2	- -	0
Detrait Tawn	1600	4-28	0	0.0	0.0	- -	2
Detroit Dam	1580	4-28	0	0.0	0.0	- -	2
Galden Curry Creek	3136	d					
Hogg Pass	4755	4-28	51	22.4	48.5	57.2	6
Lake Harriet	3400	5-1	0	0.0	0.0	- -	2
Layng Creek	1200	d					
Lost Creek Ranch	1746	4-29	0	0.0	0.0	- -	0
Lund Park	1740	d					
Marion Forks	2730	4-28	0	0.0	0.0	- -	4
Marys Peak	3620	d					
McCredie Springs	2120	4-28	0	0.0	0.0	- -	3
McKenzie	4800	4-29	48	22.8	55.6	- -	0
McKenzie Bridge	1372	4-29	0	0.0	0.0	- -	0
Meridian Dam	750	4-28	0	0.0	0.0	- -	3
Mill City	826	4-28	0	0.0	0.0	- -	3
Oakridge	1310	4-28	0	0.0	0.0	- -	3
Peavine Ridge	3500	5-1	T	T	6.9	17.5	7
Phlax Point	5600	4-28	99	45.8	83.1	59.1	13
Railraad Overpass	2750	4-28	0	0.0	0.0	- -	2
Salt Creek Falls	4000	4-28	0	0.0	T	- -	3
Santiam Junction	3990	4-28	0	0.0	10.5	19.1	5
Still Creek	3700	4-29	18	8.9	12.1	14.9	12
Timathy Lake	3295	5-1	0	0.0	5.5	- -	0
Vida	800	4-29	0	0.0	0.0	- -	0
Walda Lake	5500	d					
Weaver Creek	2440	d					
White Branch Slide	2800	4-29	0	0.0	0.0	- -	0
Whitewater Bridge	2175	4-28	0	0.0	0.0	- -	2
Willamette Pass	5600	4-24	47	20.3	50.3	- -	4

WATER SUPPLY OUTLOOK
ROGUE, UMPQUA WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

Below normal April precipitation coupled with a "snow crop" that is less than half normal indicates a downward trend in irrigation water supplies for the Rogue-Umpqua area of southern Oregon. The outlook is only "fair" with late season water shortages to be expected in most areas.

Reservoired water supplies are sufficient for most irrigation districts except for the possibility of shortages toward the tail-end of the season.

SNOW-COVER

Water content of the mountain snowcover is 46 percent of normal and 34 percent of last year at this date. Snow-melt during April was considerably heavier than usual.

RESERVOIR STORAGE

Stored water supplies are 126 percent of normal and about the same as a year ago. The 10,000 acre feet in Howard Prairie will be of real help to the Talent Irrigation District when the canal is completed.

STREAMFLOW

Forecasts of April-September runoff for the main Rogue are 69 percent of normal. Grants Pass Irrigation District should expect canal alternation by about August 1 to 15.

The Applegate and Illinois Rivers are forecast at 86 percent normal. Smaller tributaries will definitely be short of water in the late season.

Forecasts for Fourmile Lake, Fish Lake and Hyatt Lake are set at about 45 percent of normal. These are "short flows" compared to the needs of the districts that are served. Flow of McDonald Ditch will be cut off at a very early date this year.

The North Umpqua is forecast at 79 percent of normal for the April-September season. The flow of Cow Creek near Azalea on the South Umpqua will provide only poor irrigation supplies.

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M-1853-9

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

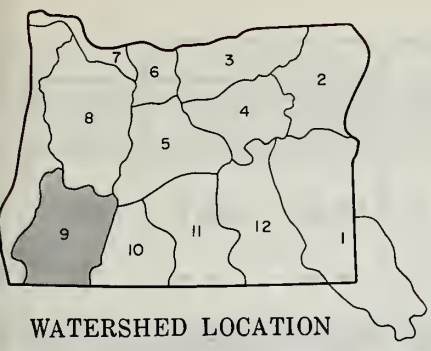
STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Althouse Creek	Fair	Fair	
Applegate River, Big	Average	Fair	
Applegate River, Little	Fair	Fair	
Ashland Creek	Fair	Fair	
Butte Creek, Little	Fair	Fair	
Cow Creek	Fair	Poor	
Deer Creek	Fair	Fair	
Eagle Point Irrigation District	Average	Fair	
Elk Creek	Fair	Poor	
Emigrant Creek (above Reservoir)	Fair	Fair	
Evans Creek	Fair	Poor	
Gold Hill Irrigation District	Average	Fair	
Gronts Pass Irrigation District	Average	Fair	Canal alternation is probable by August 1-15.
Grove Creek	Fair	Poor	
Illinois River, East Fork	Average	Fair	
Illinois River, West Fork	Average	Fair	
Medford Irrigation District	Average	Fair	
Neil Creek	Fair	Fair	
Red Blanket Creek	Fair	Fair	
Rogue River	Average	Fair	
Rogue River Valley Irrigation District	Average	Fair	
Sucker Creek	Fair	Fair	
Table Rock Irrigation District	Average	Fair	
Talent Irrigation District	Average	Fair	
Thompson Creek	Fair	Fair	
Wagner Creek	Fair	Fair	
Williams Creek	Fair	Fair	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
7294	Applegate near Copper	100	April – Sept.	116 [h]	86
7420A	Clearwater above Trap Creek [e]	51	April – Sept.	64	80
8321	Fourmile Lake net inflow [e]	3.1	April – Sept.	7.0	44
8320	Hyatt Reservoir net inflow [e]	2.7	April – Sept.	6.0	45
712	Illinois River near Kerby [e]	155	April – Sept.	181	86
7230	Little Butte, North Fork below Fish Lake [e]	6.5	April – Sept.	14.9	44
722	Rogue above Prospect	220	April – Sept.	316	70
		185	April – July	265	70
7217	Rogue, Middle Fork near Prospect [e]	STATION DISCONTINUED	April – Sept.	74	
			April – July	58	
7282	Rogue, South Fork near Prospect [e]	51	April – Sept.	76	67
		44	April – July	65	68
7277	Rogue below South Fork	480	April – Sept.	680	71
		390	April – July	553	71
724	Rogue at Raygold near Central Point	620	April – Sept.	905	69
		525	April – July	760	69
7292	Rogue at Gronts Pass	590	April – Sept.	852	69
7419	Umpqua, North Fork below Lake Creek [e]	130	April – Sept.	164	79

[a] *Assuming normal meteorological conditions.* [b] *1938 - '52, 15 year period.* [c] *Number of years in 1938 - '52 period.* [d] *Not scheduled.* [e] *Corrected to natural flow.* [f] *Aerial snow depth gage; water content estimated.* [g] *Report delayed.* [h] *1938 - '39 excepted.*

ROGUE, UMPQUA WATERSHEDS



WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	NORMAL [b]
Emigrant Gap	8.3	7.0	7.6	8.2
Fish Lake	7.8	7.9	7.2	5.6
Fourmile Lake	16.1	16.2	- -	9.6
Hyatt Prairie	16.1	14.6	16.6	9.7
Howard Prairie	60.0	10.0	- -	- -

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
					WATER CONTENT (Inches)		
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	NORMAL [b]	YEARS OF RECORD [c]
Althouse	4530	d					
Annie Spring	6018	4-27	50	20.7	59.4	42.7	12
Big Red Mountain	6500	d					
Billie Creek Divide	5300	4-28	0	0.0	- -	- -	3
Champion	4500	d					
Diamond Lake	5315	4-27	6	2.5	24.6	18.1	8
Fish Lake	4865	4-30	0	0.0	- -	- -	1
Fourmile Lake	6000	4-30	0	0.0	- -	- -	0
Grayback Peak	6000	d					
Hazel View	2500	d					
Hobart Lake	5010	d					
Hyatt Prairie Reservoir	4900	d					
Little Red Mountain	6500	d					
North Umpqua	4215	g					
Oregon Caves	4000	d					
Page Mountain	4045	d					
Park Headquarters	6450	4-27	72	33.8	80.2	62.2	9
Scragg Mountain	6200	d					
Seven Lakes No. 1	6800	d					
Seven Lakes No. 2	6200	d					
Silver Burn	3720	4-28	0	0.0	6.2	- -	2
Siskiyou Summit	4630	d					
South Fork Canal	3500	4-28	0	0.0	0.0	- -	1
Trap Creek	3800	d					
Wagner Butte	6900	d					
Whaleback	5140	d					
Windigo Pass	5800	4-23	42	19.1	55.6	- -	4

WATER SUPPLY OUTLOOK
KLAMATH WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

An extremely poor snow-pack, coupled with one-third normal precipitation in April, will produce only fair water supplies in Klamath Basin for the 1959 irrigation season. Lands served from reservoired water supplies will have a satisfactory irrigation season but all others will have late-season shortages.

SNOW-COVER

Water content of the mountain snow-pack is only half normal and is 39 percent of the 1958 pack. Snow remains only at the high elevations with snow-melt proceeding at an above normal rate.

SOIL-MOISTURE

Watershed soils beneath the snow-pack are well wetted but elsewhere they have been drying out faster than usual.

RESERVOIR STORAGE

Total water stored in Upper Klamath Lake, Gerber, and Clear Lake Reservoirs is normal for this date but is only 77 percent of a year ago. Most small reservoirs and stock ponds are only partially filled.

Next year's water outlook will depend in part on carry-over supplies remaining after this year's operations. Water users are urged to make the most efficient use of their water supplies to increase carry-over amounts.

STREAMFLOW

Forecasts of the April-September runoff of Sprague and Williamson Rivers and of inflow to Upper Klamath Lake are set at 81 percent of normal.

Inflow to Gerber and Clear Lake Reservoirs, however, is expected to be only 20 percent of the 1938-52 average.

Smaller streams heading in low elevations will have extremely short flows this season.

Report prepared by
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U S Department of Agriculture, Soil Conservation Service
209 S W Fifth Avenue, Portland, Oregon

M-1853-10

7-S-20209-10-N

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Ft. Klamath Valley	Average	Fair	Only unusually heavy rains in the May-June period can improve these water outlooks.
Lost River (Clear Lake)	Average	Fair	
Lost River (Gerber)	Average	Fair	
Lost River (Willow Reservoir)	Fair	Poor	
Sprague River	Average	Fair	
Upper Klamath Lake	Average	Fair	
Williamson River	Average	Fair	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT NO.	FORECAST POINT NAME	FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
823	Clear Lake Reservoir net inflow [h]	10 d	April - Sept. March-July	49 86	20
8215	Gerber Reservoir net inflow [h]	5 d	April - Sept. March-July	24 42	21
8421	Sprague near Chiloquin	200	April - Sept.	253	79
832	Upper Klamath Lake net inflow [h]	425 350	April - Sept. April - July	526 424	81 82
8419	Williamson below Sprague River	330 280	April - Sept. April - July	406 340	81 82

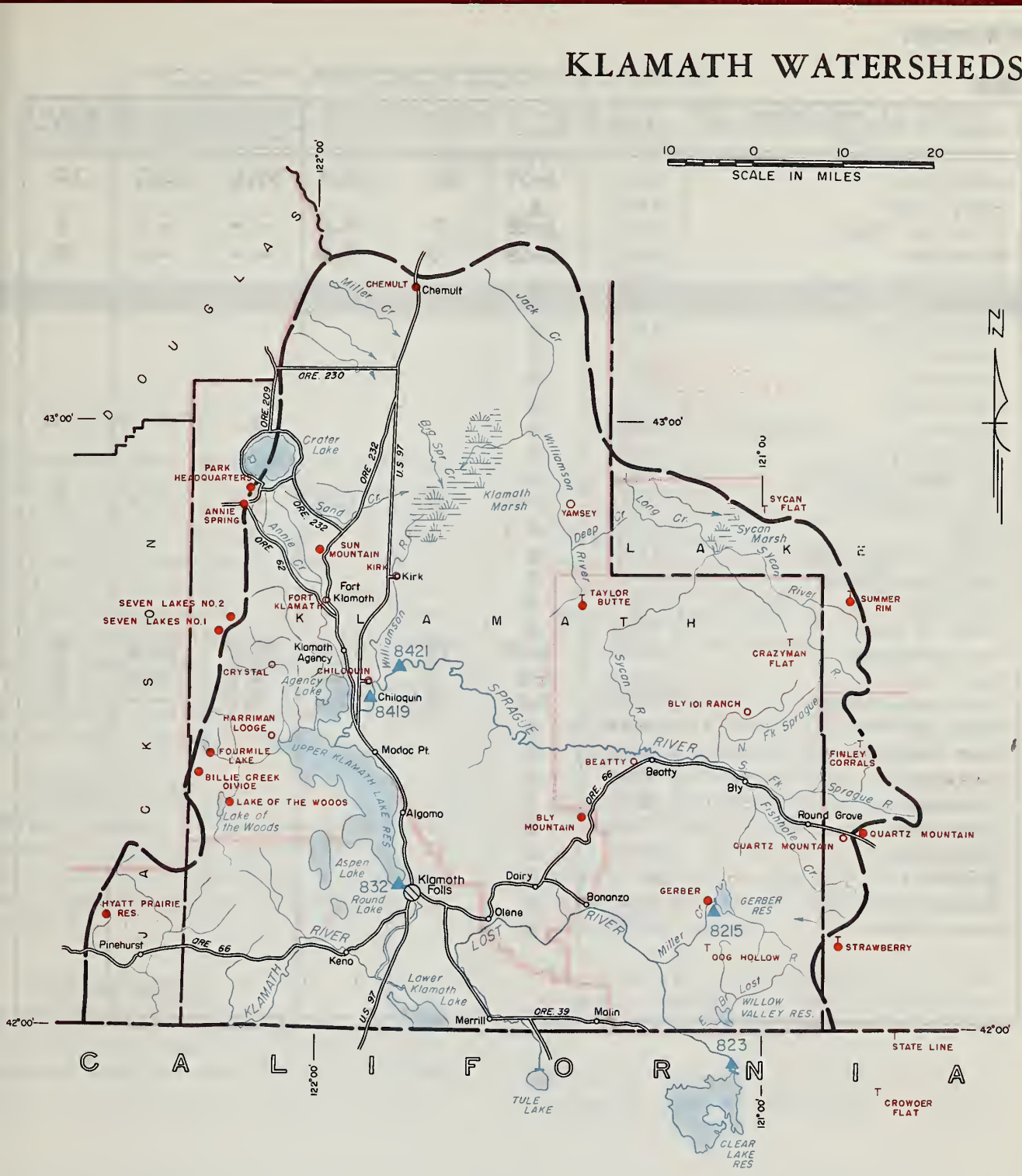
RESERVOIR STORAGE (1,000 Ac. Ft.)

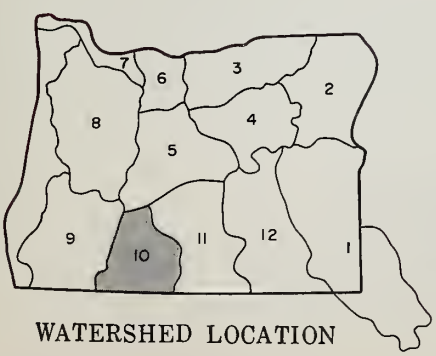
RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	NORMAL [b]
Clear Lake	440.2 [i]	276.4	455.4	253.3 [j]
Gerber	94.0	51.0	93.9	60.6 [j]
Upper Klamath Lake	584.0	496.9	516.2	499.9

[a] Assuming normal meteorological conditions. [b] 1938 - '52, 15 year period. [c] Number of years in 1938 - '52 period [d] Not scheduled. [e] Corrected to natural flow. [f] Aerial snow depth gage; water content estimated. [g] Report delayed. [h] From COPCO or USBR records of inflow. [i] Flashboards increase capacity to 513.0.

[j] 1938 excepted.

KLAMATH WATERSHEDS





WATERSHED LOCATION

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- T Aerial Snow Depth Gage
- COPCO Snow Station

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
					WATER CONTENT (Inches)		YEARS OF [c]
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	LAST YEAR	NORMAL [b]	RECORD
Annie Spring	6018	4-27	50	20.7	59.4	42.7	12
Beatty (Copco)	4300	g					
Billie Creek Divide	5300	4-28	0	0.0	- -	- -	3
Bly Mountain	5090	4-28	0	0.0	- -	- -	0
Bly 101 Ranch (Copco)	4800	g					
Chemult	4760	d					
Chiloquin (Copco)	4187	g					
Crazyman Flat [f]	6100	d					
Crowder Flat [f]	5200	d					
Crystal (Copco)	4200	g					
Dog Hollow [f]	4900	d					
Finley Corrals [f]	6000	d					
Fort Klamath (Copco)	4150	g					
Fourmile Lake	6000	4-30	0	0.0	- -	- -	0
Gerber	4850	d					
Harriman Lodge (Copco)	4200	g					
Hyatt Prairie Reservoir	4900	d					
Kirk (Copco)	4533	g					
Lake of the Woods	4960	g					
Park Headquarters	6450	4-27	72	33.8	80.2	62.2	9
Quartz Mountain	5320	5-1	0	0.0	0.0	- -	2
Quartz Mountain (Copco)	5504	5-1	0	0.0	0.0	- -	2
Seven Lakes No. 1	6800	d					
Seven Lakes No. 2	6200	d					
State Line [f]	5750	d					
Strawberry	5600	d					
Summer Rim	7200	d					
Sun Mountain	5350	d					
Sycan Flat [f]	5500	d					
Taylor Butte	5100	d					
Yamsey (Copco)	4600	g					

WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

Extremely short precipitation during April combined with a near record low snow-pack indicates an extremely poor water outlook for the 1959 irrigation season in Lake County. Only those lands served from the larger reservoirs, such as Drew Creek and Cottonwood, will have better supplies. Owners of these lands should conserve all the water they can spare to provide some carry-over for next year.

SNOW-COVER

Water content of the mountain snow-pack is extremely short and much of that present a month ago has melted off, producing only minimum flows of water.

SOIL-MOISTURE

Soils in the higher parts of the watersheds have been partially wetted and are now rapidly drying out as are soils in lower areas.

RESERVOIR STORAGE

Water available in Drew and Cottonwood Reservoirs is 84 percent of the average amount but only 76 percent of that of one year ago. Other small reservoirs such as Albertson, Strawberry and Flynn have very little water in them. Such is the case also with most stock ponds.

STREAMFLOW

Forecasts of runoff for the 1959 irrigation season (April-June) are all much below normal. Chewaucan River is forecast at 44 percent of normal; Honey Creek, 51 percent; Deep Creek, 52 percent; Twentymile Creek, 48 percent; and inflow to Drews Reservoir is estimated at 30 percent of normal.

The pattern of streamflow will be somewhat similar to that of 1955 but not as short as in 1947.

Smaller streams will make an extremely poor showing this season.

Report prepared by
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USDA-SCS PORTLAND, OREG. 1959 M-1853-II

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Chewaucan River	Fair	Poor	Much above normal rains
Crooked Creek	Fair	Poor	will be needed during
Deep Creek	Fair	Poor	the April-June period to
Dry Creek	Poor	Poor	improve these extremely
East Side Goose Lake	Poor	Poor	short water supplies.
Guano Lake	Poor	Poor	
Honey Creek	Fair	Poor	
Lakeview Water Users Association	Average	Fair	
Rock Creek	Poor	Poor	
Silver-Buck Creeks	Fair	Poor	
Summer Lake	Fair	Poor	
Thomas Creek	Fair	Poor	
Twentymile Creek	Fair	Poor	
Warner Lakes	Fair	Poor	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
NO.	NAME				
924	Chewaucan near Paisley	32	April — June	73	44
9127	Deep above Adel	35	April — June	67	52
814	Drew Reservoir net inflow	9.0	April — July	30 [h]	30
		d	March — July	44 [h]	
9114	Honey near Plush	8.0	April — June	15.6 [i]	51
916	Twentymile near Adel	10.0	April — June	21 [j]	48

SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		YEARS OF [c] RECORD
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) NORMAL [b]	
Bald Mountain	6720	d					
Bear Flat Meadow [f]	5900	d					
Camas Creek	5720	d					
Cox Flat [f]	5750	d					
Crane Mountain [f]	6020	d					
Crowder Flat [f]	5200	d					
Dismal Swamp [f] (Calif.)	7000	d					
Finley Corrals [f]	6000	d					
Hart Mountain [f]	6350	d					
Mill Creek	6200	d					
Quartz Mountain (COPCO)	5504	5-1	0	0.0	0.0	- -	2
Quartz Mountain	5320	5-1	0	0.0	0.0	- -	2
Sherman Valley [f]	6600	d					
Silver Creek	4900	d					
State Line [f]	5750	d					
Strawberry	5600	d					
Summer Rim	7200	d					
Sycan Flat [f]	5500	d					

[a] Assuming normal meteorological conditions. [b] 1938-'52, 15 year period. [c] Number of years in 1938-'52 period [d] Not scheduled [e] Corrected to natural flow.
[f] Aerial snow depth gage; water content estimated. [g] Report delayed. [h] 1942, '43 and '45 excepted [i] 1942 excepted. [j] 1938'-40 excepted.
[k] 1942-'43 excepted.

LAKE COUNTY, GOOSE LAKE WATERSHEDS



WATERSHED LOCATION

RESERVOIR STORAGE (1,000 Ac. Ft.)

RESERVOIR	USABLE CAPACITY	MEASURED (First of Month)		
		THIS YEAR	LAST YEAR	NORMAL [b]
Cottonwood	4.1	2.7	4.1	3.3 [k]
Drew	62.5	47.8	62.5	56.9 [i]

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- T Aerial Snow Depth Gage
- COPCO Snow Station

WATER SUPPLY OUTLOOK
HARNEY BASIN WATERSHEDS
OREGON

as of
May 1, 1959

U.S.DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

GENERAL OUTLOOK

The water supply outlook for Harney Basin lands for the remainder of the 1959 irrigation season continues to look extremely poor. April rainfall has been much below normal, adding very little to the limited snow melt runoff that has occurred.

SNOW-COVER

The mountain snow has all but disappeared except for scattered drifts on timbered north slopes in the northern part of Harney Basin and at high elevation in the Steens Mountains.

SOIL-MOISTURE

Mountain soils are wetter than a month ago due to the inflow of snow melt water. Valley soils are drying out rapidly.

STREAMFLOW

Forecasts for the three major streams of the Harney Basin have been reduced from one to seven percent below those issued last month. The Donner und Blitzen is forecast to flow 53 percent of its April-September normal; Silvies River 21 percent normal; Trout Creek near Denio 20 percent normal. The smaller streams in the area have already had their run and unless unusually heavy May-June rains occur they will recede rapidly to extremely low flows.

This season is similar in its runoff outlook to 1954 and 1947 in the southern part of Harney Basin and to 1944 in the northern part.

Only frequent and copious rains can save Harney Basin from a desperately short water supply this summer.

Report prepared by:
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USDA-SCS PORTLAND OREG. 1959 M-1853-12

WATER SUPPLY OUTLOOK [a]

Local water supply is expressed as "Poor", "Fair", "Average" or "Excellent".

STREAM or AREA	FLOW PERIOD		REMARKS
	SPRING SEASON	LATE SEASON	
Catlaw Valley	Fair	Poor	
Caw Creek	Poor	Poor	
Donner und Blitzen River	Fair	Poor	
Mill - Coffeepot Creeks	Poor	Poor	
Rattlesnake Creek	Poor	Poor	
Silver Creek	Fair	Poor	
Silvies River	Fair	Poor	
Soldier - Prather Creek	Poor	Poor	
Trout Creek	Poor	Poor	
Whiteharse Creek	Poor	Poor	

STREAMFLOW FORECASTS [a] (1,000 Ac. Ft.)

FORECAST POINT		FORECAST THIS YEAR	FORECAST PERIOD	NORMAL [b]	THIS YEAR AS PERCENT OF NORMAL
NO.	NAME				
953	Donner und Blitzen near Frenchglen	35	April - Sept.	66	53
966	Silvies near Burns	21	April - Sept.	102	21
974	Trout near Denio	1.9	April - Sept.	9.6	20

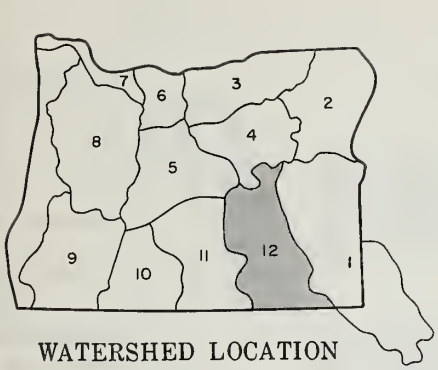
SNOW

SNOW COURSE		CURRENT INFORMATION			PAST RECORD		
NAME	ELEVATION	DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches) LAST YEAR	WATER CONTENT (Inches) NORMAL [b]	YEARS OF [c] RECORD
Blue Mauntain Springs	5900	4-27	2	1.0	21.8	- -	2
Delintment Lake	5600	d					
Disaster Peak	6500	g					
Emigrant Butte	5000	d					
Fish Creek	7900	d					
Hart Mauntain [f]	6350	d					
Idlewild Camp	5200	g					
Izee Summit	5293	4-27	0	0.0	8.2	- -	2
Lake Creek	5120	d					
Riddle Creek [f]	5800	d					
Rock Spring [f]	5100	g					
Silvies	6900	d					
Snow Mountain	6300	d					
Starr Ridge	5150	4-27	0	0.0	0.0	- -	2
Stinking Water	4800	5-1	0	0.0	- -	- -	0
Trout Creek [f]	7800	d					

Rock Spring incorrectly shown as aerial snow depth gage.

[a] *Assuming normal meteorological conditions.* [b] *1938 - '52, 15 year period.* [c] *Number of years in 1938 - '52 period.* [d] *Not scheduled.* [e] *Corrected to natural flow.*
[f] *Aerial snow depth gage; water content estimated.* [g] *Report delayed.*

HARNEY BASIN WATERSHEDS



WATERSHED LOCATION

10 0 10 20 30
SCALE IN MILES

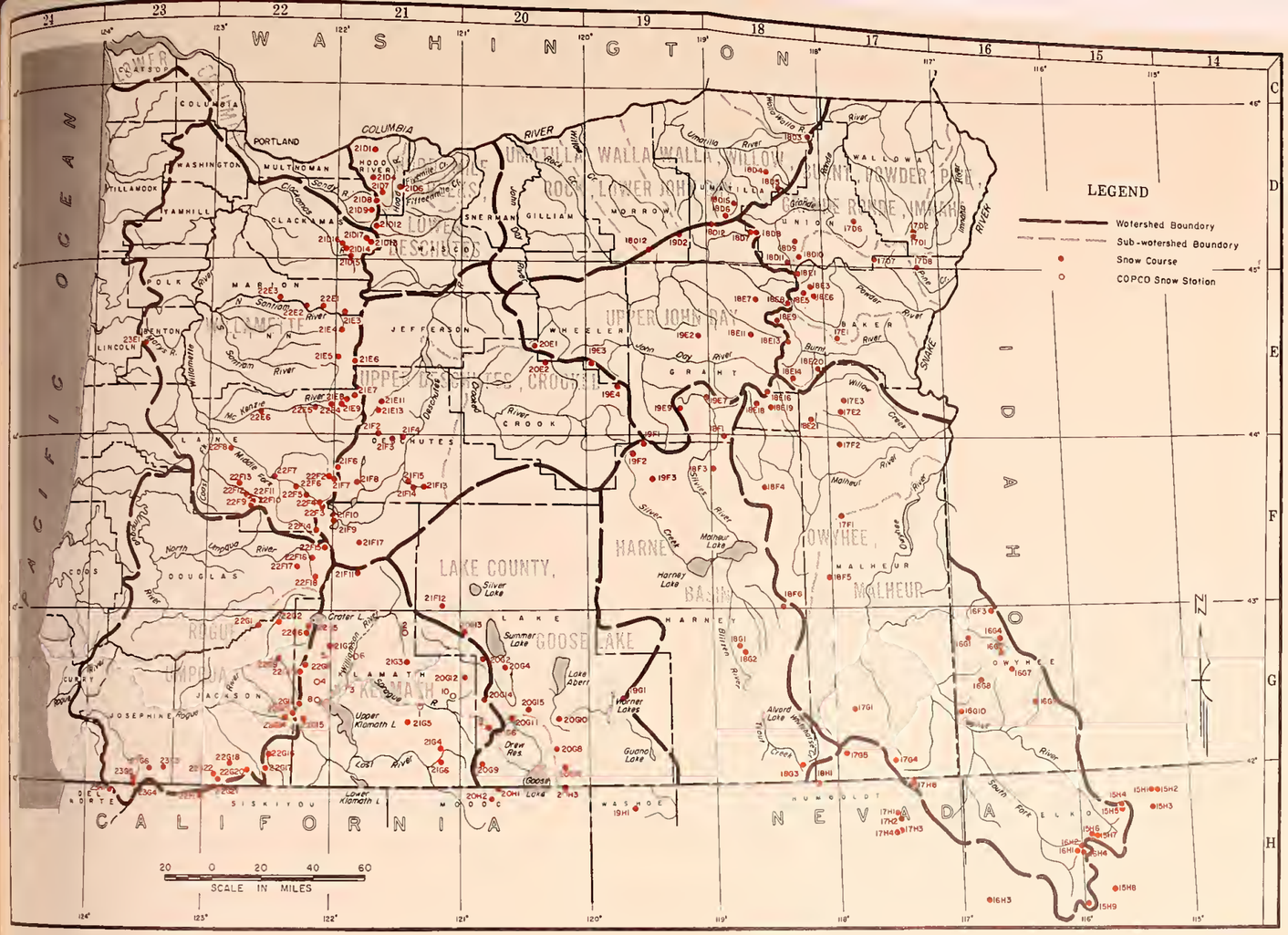
BLUE MOUNTAIN SPRINGS
STARR RIDGE
IZEE SUMMIT
Seneca
LAKE CREEK
Izee
ROCK SPRING
SNOW MOUNTAIN
44°00'
119°00'
CROOK
OELINTMENT LAKE
IOLEWILD CAMP
US 395
STINKING WATER
EMIGRANT BUTTE
966
DESCHUTES
WILLOW BALO
Harney
US 20
Burns
Hines
Buchanan
US 20
US 20 & 395
ORE 78
Crane
US 395
Malheur Lake
Princeton
Wagontire
Harney Lake
ORE 205
HARNEY
RIDDLE CREEK
43°00'
Folly Farm
FOLLY FARM
Frenchglen
SILVIES
953
FISH CREEK
Mann's Lake
LAKE
CATLOW
VALLEY
HART MTN. REFUGE
HART MOUNTAIN
Alvord Lake
MALHEUR
Fields
974
OREGON CANYON
TROUT CREEK
Denio
42°00'
NEVADA
119°00'

NZ

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- ● Snow Course
- T Aerial Snow Depth Gage
- ⚑ Soil Moisture Station

MAP *and* INDEX *to* OREGON SNOW COURSES



OWYHEE, MALHEUR WATERSHEDS (1)

OWYHEE RIVER

Number	Name		Location Sec	Twp	Rge	Elev
17H6	Quinn Ridge	(Nev)	9	47N	41E	6300
15H6	Rodeo Flat	(Nev)	36	43N	53E	6800
15M3	76 Creek	(Nev)	6	44N	58E	7100
17F1	Shumway Ranch		29	23S	39E	4400
16F3	Silver City	(Ida)	6	5S	3W	6400
18G1	Silvies		35	32S	32½E	6900
16G1	South Mountain No. 2	(Ida)	35	7S	5W	6340
15H9	Taylor Canyon	(Nev)	35	39N	53E	6200
15H8	Tremewan Ranch	(Nev)	9	39N	55E	5700
16G4	*Triangle	(Ida)	25	7S	3W	5150
18G3	Trout Creek		10	41S	38E	7800

MALHEUR RIVER

Number	Name		Location Sec	Twp	Rge	Elev
18E14	Barney Creek		16	14S	36E	5950
18E16	Blue Mountain Spring		21	15S	35E	5900
17E3	Bonita		5	16S	40E	4600
18E21	*Bully Creek		10	17S	37E	5300
17E2	Clover Creek		36	16S	39E	4100
17F2	*Cottonwood-Indian		10	19S	39E	4320
18E19	Crane Prairie		24	16S	34E	5375
18E20	Eldorado Pass		20	14S	38E	4600
18E18	Lake Creek		10	16S	33½E	5120
18F6	Riddle Creek		21	29S	35E	5800
18F1	Rock Spring		23	18S	32E	5100
17F1	Shumway Ranch		29	23S	39E	4400
18F4	Stinking Water		33	21S	34E	4800

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS (2)

BURNT RIVER

Number	Name	Location Sec	Twp	Rge	Elev
18E14	Barney Creek	16	14S	36E	5950
18E13	Blue Mountain Summit	6	12S	36E	5098
17E1	Dooley Mountain	32	11S	40E	5430
18E20	Eldorado Pass	20	14S	38E	4600
18E8	Gold Center	21	9S	36E	5340
18E9	Tipton	34	10S	35½E	5100

POWDER RIVER

Number	Name	Location Sec	Twp	Rge	Elev
18E1	Anthony Lake	18	7S	37E	7125
18E5	Bourne	33	8S	37E	5800
17E1	Dooley Mountain	32	11S	40E	5430
18E3	Eilertson Meadows	18	8S	38E	5400
18E8	Gold Center	21	9S	36E	5340
18E6	Goodrich Lake	4	9S	38E	6775
18D10	Summit Springs	9	6S	37E	6000
17D7	Taylor Green	3	6S	42E	5740

PINE CREEK

Number	Name	Location Sec	Twp	Rge	Elev
17D8	Schneider Meadows	35	6S	45E	5400

GRANDE RONDE RIVER

Number	Name	Location Sec	Twp	Rge	Elev
17D1	Aneroid Lake No. 1	16	4S	45E	7480
17D2	Aneroid Lake No. 2	16	4S	45E	7000
18E1	Anthony Lake	18	7S	37E	7125
18D9	Beaver Reservoir	8	5S	37E	5340
18D11	Camp Careon	33	6S	36E	5970
18D8	County Line	28	4S	34E	4800
18D6	Lucky Strike	28	3S	32E	5050
18D5	Meecham	24 & 25	1S	35E	4300
17D6	Moss Spring	28	3S	41E	5850
18D7	Schoolmarm	28	4S	34E	4775
18D10	Summit Springs	9	6S	37E	6000
17D7	Taylor Green	3	6S	42E	5740
18D3	Tollgate	32	4N	38E	5070

IMNAHA RIVER

Number	Name	Location Sec	Twp	Rge	Elev
17D1	Aneroid Lake No. 1	16	4S	45E	7480
17D2	Aneroid Lake No. 2	16	4S	45E	7000

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS (3)

UMATILLA RIVER

Number	Name	Location Sec	Twp	Rge	Elev
1902	Arbuckle Mountain	33	4S	29E	5400
18D12	Battle Mountain Summit	29	3S	31E	4340
18D4	Emigrant Springs	29	1N	35E	3925
18D6	Lucky Strike	28	3S	32E	5050
18D15	Pearson Creek	31	2S	33E	3000
18D5	Meacham	24 & 25	1S	35E	4300
18D3	Tollgate	32	4N	38E	5070

WALLA WALLA RIVER

Number	Name	Location Sec	Twp	Rge	Elev
18D3	Tollgate	32	4N	38E	5070

WILLOW CREEK

Number	Name	Location Sec	Twp	Rge	Elev
19D2	Arbuckle Mountain	33	4S	29E	5400

UPPER JOHN DAY WATERSHEDS (4)

UPPER JOHN DAY RIVER

Number	Name	Location Sec	Twp	Rge	Elev
18E1	Anthony Lake	18	7S	37E	7125
19D2	Arbuckle Mountain	33	4S	29E	5400
18D12	Battle Mountain Summit	29	1S	31E	4340
19E2	Beech Creek Summit	4	12S	30E	4800
18E16	Blue Mountain Spring	21	15S	35E	5900
18E13	Blue Mountain Summit	6	12S	36E	5098
19E3	Derr	14	13S	23E	5670
18E11	Dixie Springs	28	11S	34E	6650
18E8	Gold Center	21	9S	36E	5340
19E9	Izee Summit	28	16S	29E	5293
18D6	Lucky Strike	28	3S	32E	5050
20E1	Marks Creek	25	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
18E7	Olive Lake	14	9S	33½E	6000
18D7	Schoolmarm	28	4S	34E	4775
19F1	Snow Mountain	1	19S	26E	6300
19E7	Starr Ridge	20	15S	31E	5150
18E9	Tipton	34	10S	35½E	5100

UPPER DESCHUTES, CROOKED WATERSHEDS (5)

UPPER DESCHUTES RIVER

Number	Name	Location Sec	Twp	Rge	Elev
21E11	Black Pine Spring	14	16S	9E	4600
21F8	Caldwell Ranch	30	21S	8E	4400
22F3	Cascade Summit	7	23S	6E	4880
21F7	Charlton Lake	23	21S	6E	5750
21F11	Chemult	21	27S	8E	4760
21F9	Crescent Lake	11	24S	6E	4760
21F14	Fire Road	36	21S	11E	5050
21E6	Hogg Pass	24	13S	7½E	4755
21F4	Hungry Flat	30	18S	11E	4400
21F6	Irish-Taylor	25	20S	6E	5500
21F17	Mowich	29	25S	8E	4700
21F10	New Crescent Lake	11	24S	6E	4800
21F2	New Dutchmen Flat	21	18S	9E	5400
21F13	Paulina Lake	34	21S	12E	6330
21F15	Pauline Prairie	28	21S	11E	4285
21F3	Tangent	28	18S	10E	5400
21E13	Three Creek Meadows	3	17S	9E	5600
22F2	Waldo Lake	15	21S	6E	5500
22F14	Willamette Pase	33	23S	5½E	5000
22F15	Windigo Pass	20	25S	6E	5800

CROOKED RIVER

Number	Name	Location Sec	Twp	Rge	Elev
19E3	Derr	14	13S	23E	5670
20E1	Marks Creek	25	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
19F1	Snow Mountain	1	19S	26E	6300
19E4	Tamerack	8	15S	25E	4800

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS (6)

HOOD RIVER

Number	Name	Location Sec	Twp	Rge	Elev
21D6	Brooke Meadowe	2	2S	10E	4300
21D1	Greenpoint Reservoir	28	2N	9E	3400
21D8	Phlox Point	6	3S	9E	5600
21D4	Red Hill	21	1S	9E	4400
21D9	Still Creek	25	3S	8½E	3700
21D7	Tilly Jane	15	2S	9E	6000

MILE CREEKS - MOSIER CREEK

Number	Name	Location Sec	Twp	Rge	Elev
21D6	Brooks Meadows	2	2S	10E	4300

LOWER DESCHUTES RIVER

Number	Name	Location Sec	Twp	Rge	Elev
21D12	Cleer Lake	29	4S	9E	3500
21E6	Hogg Pass	24	13S	7½E	4755

LOWER COLUMBIA WATERSHEDS (7)

SANDY RIVER

Number	Name	Location Sec	Twp	Rge	Elev
21D8	Phlox Point	6	3S	9E	5600
21D9	Still Creek	25	3S	8½E	3700

WILLAMETTE WATERSHEDS (8)

CLACKAMAS RIVER

Number	Name	Location Sec	Twp	Rge	Elev
21D15	Big Bottom	25	6S	7E	2118
21D13	Clackamas Lake	35	5S	8½E	3400
21D12	Clear Lake	29	4S	9E	3500
21D16	Lake Herriet	4	6S	7E	2045
21D14	Peavine Ridge	14 & 15	6S	7E	3500
21D8	Phlox Point	6	3S	9E	5600
21D9	Still Creek	25	3S	8½E	3700
21D17	Timothy Lake	26	5S	8E	3295

SANTIAM RIVER

Number	Name	Location Sec	Twp	Rge	Elev
22E1	Detroit (town)	1	10S	5E	1500+
22E2	Detroit Dam	7	10S	5E	1580
21E6	Hogg Pass	24	13S	7½E	4755
21E4	Marion Forke	28	11S	7E	2730
22E3	Mill City	29	9S	3E	826
21E5	Santiam Junction	14	13S	7E	3990
21E3	Whitewater Bridge	28	10S	7E	2175

McKENZIE RIVER

Number	Name	Location Sec	Twp	Rge	Elev
21E8	Dead Horse Grade	13	16S	7E	3800
22E4	Lost Creek Ranch	24	16S	6E	1746
21E7	McKenzie	35	15S	7½E	4800
22E5	McKenzie Bridge	13	16S	5E	1372
22E6	Vide	28	16S	2E	800
21E9	White Brench Slide	15	16S	7E	2800

MIDDLE FORK WILLAMETTE RIVER

Number	Name	Location Sec	Twp	Rge	Elev
22F3	Cascade Summit	7	23S	6E	4880
21F7	Charlton Lake	23	21S	6E	5750
22F6	McCredie Springs	36	21S	4E	2120
22F8	Meridian Dam	13	19S	1W	750
22F7	Oakridge	16	21S	3E	1310
22F5	Railroad Overpase	27	22S	5E	2750
22F4	Salt Creek Falls	33	22S	6E	4000
22F2	Waldo Lake	15	21S	6E	5500
22F14	Willamette Pase	33	23S	5½E	5600

COAST FORK WILLAMETTE RIVER

Number	Name	Location Sec	Twp	Rge	Elev
22F9	Champion	12	23S	1E	4500
22F10	Golden Curry Creek	1	23S	1E	3136
22F13	Layng Creek R. S.	31	21S	1E	1200
22F12	Lund Perk	22	22S	1E	1740
22F11	Weaver Creek	35	22S	1E	2440

MARY'S RIVER

Number	Name	Location Sec	Twp	Rge	Elev
23E1	Mary's Peak	21	12S	7W	3620

ROGUE, UMPQUA WATERSHEDS (9)

ROGUE RIVER

Number	Name		Location Sec	Twp	Rge	Elev
23G4	Althouse		17	41S	7W	4530
22G6	Annie Spring		19	31S	6E	6018
22G21	Big Red Mountain		31	40S	1W	6500
22G13	Billie Creek Divide		30	36S	5E	5300
22G14	Fish Lake		3	37S	4E	4865
22G12	Fourmile Lake		9	36S	5E	6000
23G3	Greyback Peak		9	40S	5W	6000
23H1	Hazel View	(Cal)	9	48N	4E	2500
22G17	Hobert Lake		17	40S	3E	5010
22G16	Hyett Prairie Reservoir		15	39S	3E	4900
22G22	Little Red Mountain		25	40S	2W	6500
23G6	Oregon Covee		16	40S	6W	4000
23G5	Page Mountain		8	41S	7W	4045
22G5	Perk Headquertere		8	31S	6E	6150
22H1	Scragg Mountain	(Cal)	9	47N	10W	6200
22G10	Seven Lakes No. 1		3	34S	5E	6800
22G11	Seven Lakes No. 2		26	33S	5E	6200
22G2	Silver Burn		30	30S	4E	3720
22G20	Siskiyou Summit		17	40S	2E	4630
22G9	South Fork Canal		12	33S	3E	3500
22G1B	Wagner Butte		1	40S	1W	6900
22G1	Whalebeck		3	31S	2E	5140

UMPQUA RIVER

Number	Name	Location Sec	Twp	Rge	Elev
22F9	Champion	12	23S	1E	4500
22F18	Diamond Lake	29	27S	6E	5315
22F16	North Umpque	19	26S	6E	4215
22F17	Trap Creek	1	27S	4E	3800
22G1	Whalebeck	3	31S	2E	5140
22F15	Windigo Pass	20	25S	6E	5800

KLAMATH WATERSHEDS (10)

KLAMATH RIVER

Number	Name		Location Sec	Twp	Rge	Elev
22G6	Annie Spring		19	31S	6E	6018
22G13	Billie Creek Divide		30	36S	5E	5300
21G5	Bly Mountain		15 & 22	37S	11E	5090
21F11	Chemult		21	27S	8E	4760
20G12	*Crezyman Flat		9	34S	15E	6100
20N2	*Crowder Flet	(Cal)	30	47N	11E	5200
21G6	*Hog Hollow		1	40S	14E	4900
20G14	*Finley Correle		11	36S	10E	6000
22G12	Fourmile Lake		9	36S	5E	6000
21G4	Gerber		12	39S	13E	4850
22G16	Hyett Prairie Reservoir		15	39S	3E	4900
22G15	Lake of the Woods		11	37S	5E	4960
22G5	Perk Headquertere		8	31S	6E	6150
20G6	Quarts Mountain		2	38S	16E	5320
22G10	Seven Lakes No. 1		3	34S	5E	6800
22G11	Seven Lakes No. 2		26	33S	5E	6200
20H1	*State Line	(Cal)	21	48N	11E	5750
20G9	Strawberry		4	40S	16E	5600
20G2	Summer Rim		15	33S	16E	7200
21G2	Sun Mountain		22	32S	7½E	5350
20G13	*Sycen Flat		25	31S	11E	5500
21G3	Taylor Butte		16	33S	11E	5100

THE CALIFORNIA OREGON POWER COMPANY'S SNOW STATIONS

1	Beatty (COPCO)	22 36S 12E 4300
10	Bly 101 Ranch (COPCO)	22 35S 14E 4800
3	Chiloquin (COPCO)	34 34S 7E 4187
4	Crystal (COPCO)	26 34S 6E 4200
5	Fort Klamath (COPCO)	22 33S 7½E 4150
B	Herriman Lodge (COPCO)	3 36S 6E 4200
6	Kirk (COPCO)	1 33S 7E 4533
9	Quarts Mountain (COPCO)	33 37S 16E 5504
12	Yamsey (COPCO)	20 31S 11E 4600

LAKE COUNTY, GOOSE LAKE WATERSHEDS (11)

GOOSE LAKE

Number	Name		Location Sec	Twp	Rge	Elev
20G15	*Bear Flat Meadow		27	36S	19E	5900
20G8	Camas Creek		5	39S	21E	5720
20G11	*Cox Flat		16	37S	18E	5750
20G16	*Crane Mountain		13	40S	21E	6020
20H2	*Crowder Flet	(Cal)	30	47N	11E	5200
20H3	*Diemal Swamp	(Cal)	31	48N	16E	7000
20G6	Quartz Mountain		2	38S	16E	5320
20H1	*State Line	(Cal)	21	48N	11E	5750
20G9	Strawberry		4	40S	16E	5600

ABERT LAKE

Number	Name		Location Sec	Twp	Rge	Elev
20G15	*Bear Flat Meadow		27	36S	19E	5900
20G11	*Cox Flat		16	37S	18E	5750
20G14	*Finley Correle		11	36S	10E	6000
20G4	Mill Creek		1	34S	17E	6200
20G6	Quartz Mountain		2	38S	16E	5320
20G10	*Sherman Velley		15	37S	21E	6600

SUMMER LAKE

Number	Name	Location Sec	Twp	Rge	Elev
20G2	Summer Rim	15	33S	16E	7200

SILVER LAKE

Number	Name		Location Sec	Twp	Rge	Elev
21F12	Silver Creek		25 & 26	29S	13E	4900
20G13	*Sycan Flat		25	31S	14E	5500

WARNER LAKE

Number	Name		Location Sec	Twp	Rge	Elev
20G8	Camas Creek		5	39S	21E	5720
20G16	*Crane Mountain		13	40S	21E	6020
20H3	*Diemal Swamp	(Cal)	31	48N	16E	7000
19G1	*Hart Mountain		1	36S	25E	6350
20G10	*Sherman Valley		15	37S	21E	6600

GUANO LAKE

Number	Name		Location Sec	Twp	Rge	Elev
19H1	Bald Mountain	(Nev)	17	45N	21E	6720
19G1	*Hart Mountain		1	36S	25E	6350

HARNEY BASIN WATERSHEDS (12)

SILVIES RIVER - SILVER CREEK

Number	Name	Location Sec	Twp	Rge	Elev
19F2	Delintment Lake	28	19S	26E	5600
19F3	Emigrant Butte	14	21S	27E	5000
18F3	Idlewild Camp	33	20S	31E	5200
19E9	Izee Summit	28	16S	29E	5293
18F1	Rock Spring	23	18S	32E	5100
19F1	Snow Mountain	1	19S	26E	6300
19E7	Starr Ridge	20	15S	31E	5150
18F4	Stinking Water	33	21S	34E	4800

OONNER UND BLITZEN RIVER

Number	Name		Location Sec	Twp	Rge	Elev
18G2	Fish Creek		4	33S	33E	7900
19G1	*Hart Mountain		1	36S	25E	6350
18F6	Riddle Creek		21	29S	35E	5800
18G1	Silvies		35	32S	32½E	6900

TROUT AND WHITEHORSE CREEKS

Number	Name		Location Sec	Twp	Rge	Elev
18H1	Disaster Peak	(Nev)	8	47N	34E	6500
17G5	Oregon Canyon		9	40S	40E	7240
18G3	Trout Creek		10	41S	38E	7800

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

7-S-19101-0

CORRECTIONS - SNOW MAP AND INDEX

NEW SNOW COURSES (Too late for map entry)

Number	Name	Location Sec.	Twp.	Rge.	Elev.
	OWYHEE RIVER				
18G7	*"V" Lake	31	35½S	32¾E	6600
	MALHEUR RIVER				
18F7	*Call Meadows	29	20S	33E	5340
18E22	*Logan Valley	13	16S	33½E	5100
	HOOD RIVER				
21D20	Pineball Springs	31	1S	11E	3850
21D21	Urich Ranch Junction	28	1S	11E	3350
	MILE CREEKS - MOSIER CREEK				
21D20	Pineball Springs	31	1S	11E	3850
21D21	Urich Ranch Junction	28	1S	11E	3350
	UMPQUA RIVER				
22F19	Diamond-Crater Summit	34	28S	6E	5800
	KLAMATH RIVER				
22G24	Cold Springs Camp	12	35S	5E	6100
22F19	Diamond-Crater Summit	34	28S	6E	5800
21F18	Diamond Lake Jct. (97)	1	29S	7E	4600
22G25	Pelican Guard Station	9	36S	6E	4150
	SILVIES RIVER - SILVER CREEK				
18F7	*Call Meadows	29	20S	33E	5340
	DONNER UND BLITZEN RIVER				
18G7	*"V" Lake	31	35½S	32¾E	6600
	TROUT and WHITE HORSE CREEKS				
18G6	*Denio Creek	14	41S	34E	6000

ERRATA

16G10 *Bull Basin - should read Range 5 west.
18F6 *Riddle Creek - is aerial snow depth gage.
17G5 *Oregon Canyon - is aerial snow depth gage.
18G5 *Trout Creek - is aerial snow depth gage and is shown incorrectly as 18G3.
18D12 Shown in 19 D block on map should be deleted.

*Aerial snow depth gage.

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The following organizations cooperate in the Oregon Snow Survey work:

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon Agricultural Experiment Station
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil Conservation Districts of Oregon

FEDERAL
- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - Weather Bureau
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - Indian Service
  - National Park Service
- Department of National Defense
  - Corps of Army Engineers

PUBLIC UTILITIES
- California-Pacific Utilities Company
- Pacific Power and Light Company
- Portland General Electric Company
- The California Oregon Power Company

MUNICIPALITIES
- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS
- Associated Ditch Companies
- Central Oregon Irrigation District
- Deschutes County Municipal Improvement District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Jordan Valley Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Talent Irrigation District
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- Amalgamated Sugar Company
- The Crag Rats, Hood River, Oregon

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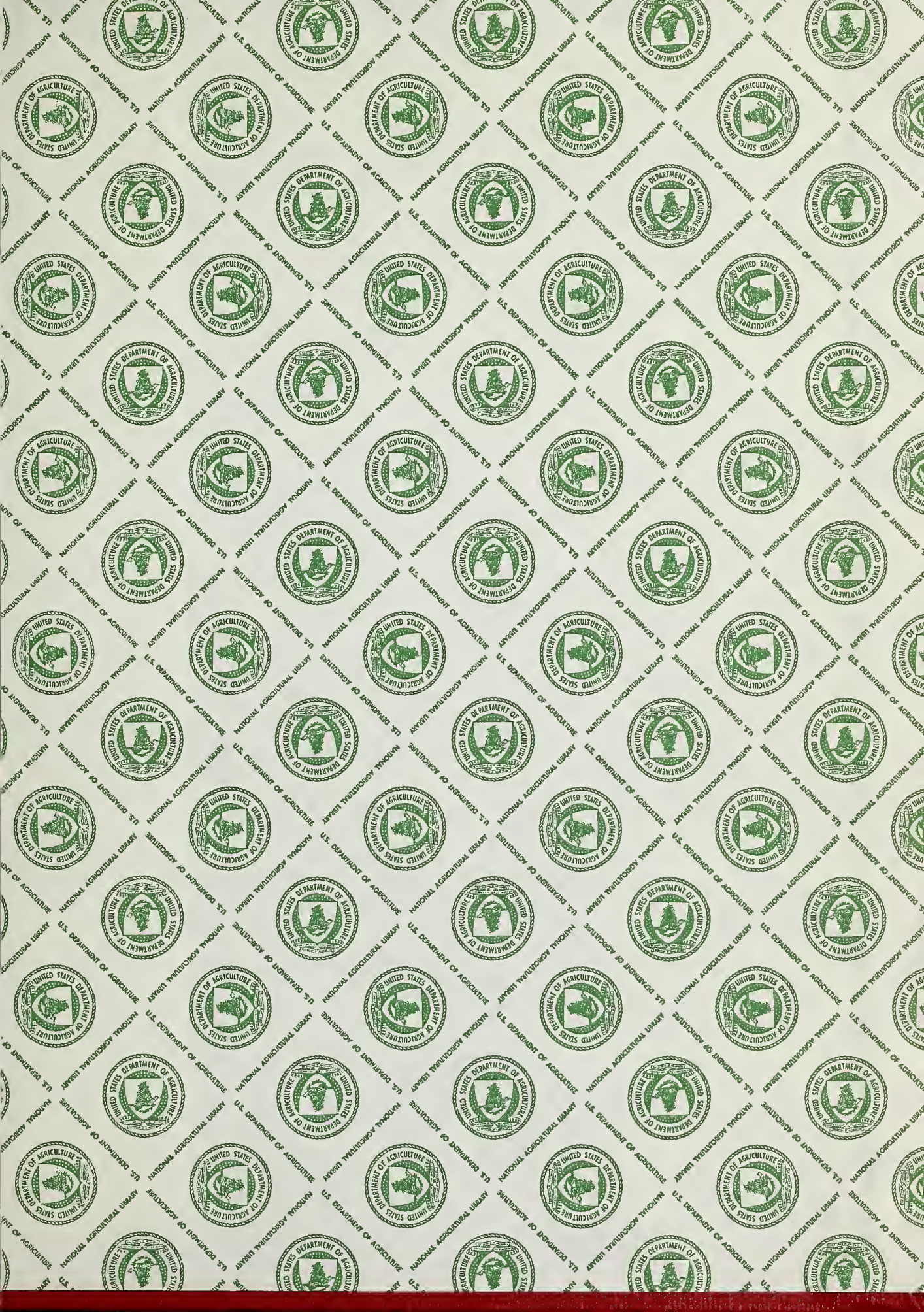
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